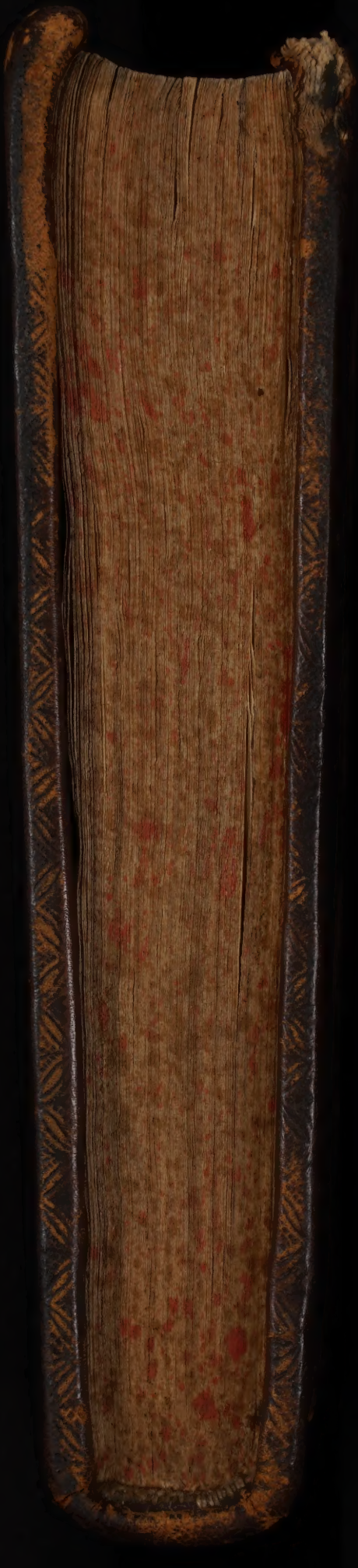
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THE Idea of Practical Physick IN TWELVE BOOKS.

VIZ.

1 *The Art to preserve Health.*
2 *Of the Preternatural Disorders of Mans Body, and their Signs.*
3 *Of Medicaments.*
4 *Of the Art of Healing.*
5 *Of the general Cure of Diseases.*
6 *Of External Diseases.*
7 *Of Feavers.*
8 *Of Head Diseases.*
9 *Of Middle-belly Diseases.*
10 *Of Lower-belly Diseases.*
11 *Of Venemous Diseases.*
12 *Of Childrens Diseases.*

These Twelve Books are of excellent Use for all yong Students in Physick. They contain the Marrow of all the Works of *Daniel Sennertus*, and *Fernelius*, and twenty five Physitians more, mentioned in the Authors Epistle. They are of so high esteem with many Learned Doctors of Physick, that they have been read by them to their Scholers, as the best extant in their kind. Written in Latin by *John Johnston*, Professor of Physick in the famous City of FRANCFORT. And Englished

---

By *Nich. Culpeper*, Gent. Student in Physick and Astrology.
And *W R.*

LONDON;
Printed by *Peter Cole*, Printer and Book-seller, at the Sign of the Printing-Press in Chornhil, near the Royal Exchange. 1657.

THE

Idea of Practical Physick

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By Nich. Culpeper, Gent. Student in Physick and Astrology.

And Dedicated to the Right Worshipful the Company of Barber-Chirurgeons of London.

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LONDON:

Printed by Peter Cole, Printer and Book-seller, at the Sign of the Printing-Press in Cornhill, near the Royal Exchange. 1657.

The Printer to the Reader.

Courteous Reader,

FInding by Experience how hardly such Gentlemen as Study Physick in our Mother tongue, are induced to read with patience and consideration, the Speculative Rules of the said Art; both (as I conceive) because of the seeming difficulty thereof, compared to books of mere Practice, and because of the undue hast that the foresaid Gentlemen are wont to make to practice upon the sick, moved by Covetousness, Vain-glory, or I know not what other evil spirit; not knowing, or little considering, how much the Reading of some such good Book is necessary to enable a Man to Practice: By which unhappy error, they prove rather Empyricks and Quacksalvers, than rational Physitians, which nevertheless they would willingly be thought to be; to remedy so great a mischeif, I have diligently sought (and at last by direction of my good Angel, found) such an Institution, so coupled with practice, and such a practice so walking hand in hand with an Institution, such a practical Institution and Institutional practice, and both in so cleare a Method, so witty and concise a stile, and furnished with such ample and delightful variety of al things any way concerning the contemplative or practical part of Physick; that I have al the Reason in the World to hope, the publication hereof wil prove an effectual Remedy to the foresaid very grievous malady; acquainting the mere English Physitian with such skil in the Theory of his Art, as he hath hitherto nauseated to receive, from any thing yet published in our Language.

I need not spend time to praise our Author: this learned, ingenious, polite Piece of his, wil sufficiently do that, which he, being chose Professor of Physick in the far renowned City of Francfort, and not able to read his Lectures, because of some troubles there, did publish to supply that defect, as the best manuduction to young students into that noble Art. And it is become of so high esteeme beyond the Seas, that the learned Professor of Physick at Leipsich, Dr. John Micael did use to bring it up into his Pulpit, as his Physical Bible (if I may so say) out of which he daily read his text, and made Sermons of that Art to his admiring Disciples.

See the Authors own Epistle following the Catalogue of Books by me Printed.

What remains (Courteous Reader) but that thou meet my Endeavours for thy good, and the good of my Country, with a chearful Countenance and a joyful

The Printer to the Reader.

Heart, and to take heed thou be none of thoſe Fooles, Who have a price in their hand to get wiſdom, but have no Heart to it; *Prov.* 17. 16. *But I have better hopes of thee* (*Friendly* Reader) *though many ſuch there are in the World.* Farewel.

Thy Friend to Serve thee, if thou pleaſe,

Peter Cole.

The Names of Books printed by Peter Cole, *Printer and Book-ſeller of* London: *and are to be ſold at his Shop, at the ſign of the Printing-preſs in Cornhil, neer the Royal Exchange.*

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1 The art to preſerve Health.
2 The preternatural diſorder of mans body, and their Signs.
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4 Of the art of Healing.
5 Of the general Cure of Diſeaſes.
6 Of External Diſeaſes.
7 Of Feavers.
8 Of Head Diſeaſes.
9 Of milde Belly Diſeaſes.
10 Of Lower belly Diſeaſes.
11 Of Venemous Diſeaſes.
12 Of Childrens Diſeaſes.

Twenty ſeven Books of Nich. Culpeper, *Gent. Student in Phyſick and Aſtrologie, formerly publiſhed.*

The firſt ſeventeen Books. Are al called the *Practice of Phyſick*, Wherein is plainly ſet forth, The *Nature*, *Cauſe*, *Differences*, and ſeveral ſorts of *Signs*; Together with the Cure of al Diſeaſes in the Body of Man. Being a Tranſlation of the Works of that Learned and Renowned Doctor, *Lazarus Riverius*, now living; Councellor and Phyſitian to the preſent King of *France*. Above fifteen thouſand of the ſaid Books in Latin have been ſold in a very few Yeers, having been eight times printed, though al the former Impreſſions wanted the Nature, Cauſes, Signs, and Differences of the Diſeaſes, and had only the Medicines for the cure for them; as plainly appears by the Authors Epiſtle.

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20 A Tranſlation of the *New diſpenſatory*, made by the Colledg of Phyſitians of *London*. Whereunto is added The *Key to* Galens *Method of Phyſick*.

21 The *Engliſh Phyſitian enlarged*: being an Aſtrologo-Phyſical Diſcourſe of the Vulgar Herbs of this Nation; wherein is ſhewed how to cure a mans ſelf of moſt Diſeaſes incident to Mans Body, with ſuch things as grow in *England*, and for three pence charge. Alſo in the ſame Book is ſhewed, 1 The time of gathering al Herbs, both Vulgarly and Aſtrologically. 2 The way of drying, and keeping them and their Juyces. 3 The way of making and keeping al manner of uſeful Compounds, made of thoſe Herbs. The way of mixing the Medicines according to the Cauſe, and Mixture of the Diſeaſe, and the part of the Body afflicted.

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24 A New Method both of ſtudying practiſing and Phyſick.

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26 Medicaments for the Poor, Or Phyſick for Common the People.

27 Health for the Rich and Poor, by Dyet without Phyſick.

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Theſe Eleven New Books of Mr. *Thomas Hooker*, made in *New-England*. Are atteſted in an Epiſtle by Mr. *Thomas Goodwin*, and Mr. *Philip Nye*, To be written with the Authors Own hand: None being written by himſelf before. One Volum being a Comment upon Chriſt's laſt Prayer in the Seventeenth of *John*: wherein is opened, The *Union* beleevers have with God and Chriſt, and the glorious Priviledges thereof. Beſides many other Goſpel Truths, there is alſo ſhewed.

1 *That the end why the Saints receive al glorious Grace, is, That they may be one, as the Father and Chriſt are one.*

2 *That God the Father loveth the Faithful, as he loveth Jeſus Chriſt.*

3 *That our Savior deſireth to have the Faithful in Heaven with himſelf.*

4 *That the happineſs of our being in Heaven, is to ſee Chriſts Glory.*

5 *That there is much wanting in the knowledg of Gods Love, in the moſt able Saints.*

6 *That the Lord Chriſt lends dayly direction, according to the dayly need of*

of his Servants.
7 *That it is the desire, and endeavor of our Savior, that the dearest of Gods Love, which was bestowed on himself, should be given to his faithful Servants.*
8 *That our Union, and Communion with God in Christ, is the top of our happiness in Heaven.*

The first eight Books: of the Application of Redemption, By the effectual Work of the Word, and Spirit of Christ, for the bringing home of lost Sinners to God. In which (besides many other seasonable, and Soul-searching Truths) there is also largely shewed.

1 *Christ hath purchased al spiritual good for* H I S.
2 *Christ puts al* H I S *into possession of al that good that he hath purchased.*
3 *The Soul must be fitted for Christ before it can receive him: And a powerful Ministry is the ordinary means to prepare the heart for Christ.*
4 *The work of God is free: And the day of Salvation, is while this Life last, and the Gospel continue.*
5 *God cals his Elect at any Age, but the most before old Age.*
6 *The Soul is naturally setled in a sinful security.*
7 *The heart of a Natural man is wholly unwilling to submit to the Word that would sever him from his sins.*
8 *God the Father by a holy kind of violence, plucks* His *out of their corruptions, and draws them to beleeve in Christ.*

The Ninth and Tenth Books of the Application of Redemption by the Effectual Work of the Word, and spirit of Christ, for the bringing home of lost sinners to God. Besides many other seasonable, and Soul-searching Truths, there is also largely shewed.

1 *The heart must be humble and contrite before the Lord wil dwel in it.*
2 *Stubborn, and bloody sinners may be made broken-hearted.*
3 *There must be true sight of sin, before the heart can be broken for it.*
4 *Application of special sins by the Ministry, is a means to bring men to sight of, and sorrow for them.*
5 *Meditation of sin, a special means to break the heart.*
6 *The same word is profitable to some, not to another.*
7 *The Lord sometimes makes the word prevale most, when its most opposed.*
8 *Sins unrepented of, makes way for piercing Terrors.*
9 *The Truth terrible to a guilty conscience.*
10 *Gross and scandalous sinners, God usually exerciseth with heavy breakings of heart, before they be brought to Christ.*
11 *Sorrow for sin rightly set on, pierceth the heart of the sinner throughly.*
12 *They whose hearts are pierced by the Word, are carried with love and respect to the Ministers of it: And are busie to enquire, and ready to submit to the mind of God.*
13 *Sinners in distress of conscience, are ignorant what they should do.*
14 *A contrite sinner sees a necessity of coming out of his sinful condition.*
15 *There is a secret hope wherewith the Lord supports the hearts of contrite sinners.*
16 *They who are truly pierced for their sins, do prise and covet deliverance from their sins.*
17 *True contrition is accompanied with confession of sin, when God cals thereunto.*
18 *The Soul that is pierced for sin, is carried with a restless dislike against it*

Six Books more of Mr. *Hookers* in two Volums in Quarto, are printing.

Twenty one several Books of Mr. William Bridge, *Collected into two Volumns.* Viz.

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5 Sins of Infirmitie.
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8 The great things Faith can do.
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11 Satans power to Tempt, and Christs Love to, and Care of his People under Temptaton
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3 *Gospel-Worship,* on *Levit.* 10. 3. Wherein is shewed, 1 The right manner of the Worship of God in General; And particularly, In hearing the Word, Receiving the Lords supper, & prayer.

4 *Gospel-Conversation,* on *Phil.* 1 17 Wherein is shewed, 1 That the Conversations of Beleevers must be above what could be by the Light of Nature. 2 Beyond those that lived under the Law. 3 And suitable to what Truths the Gospel holds forth. To which is added, *The Misery of those Men that have their Portion in this Life only,* on *Psal.* 17. 14.

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The Craft and Cruelty of the Churches Adversaries. By *Matthew Newcomin*. A Sermon.

The Magistrates Support and Burden. By Mr. *John Cordel*. A Sermon.

Mr. *Owens* stedfastness of the Promises. A Sermon.

Mr. *Phillips* Treatise of Hell.

——— of Christs Genealogy.

The Cause of our Divisions discovered, and the Cure propounded.

THE Authors Preface to the Reader.

THree things there are (Studious Reader) which I am to inform thee of in this Preface: *viz.* of the Cause of my writing this Book; of the Structure or manner of its Fabrick; and of its use.

use. I took this pains long since, only for my own private occasions; and now my being called to be publick Professor of Physick in the University of *Francfort*, is the Cause that it appears upon the publick Stage of the world. For, seeing the Injuriousness of the times would not suffer unto me to make it appear how much I valewed my Call to that Profession, and what ardent desire I had to advance the Studies of young Learners, by publick teaching; I have done both in this Book. Hereunto were added the earnest desires of certaine friends, who assured me great good would redound to young students of Physick by the publication thereof; and that though *Trincavellus*, *Fernelius*, *Pernumia*, *Petræus*, *Bruel*, *Zacutus*, had done excellently wel; yet that some of them being over brief did not meddle with the method of Cureing; others made little or no mention of the Prognostick signs; others were taken up with disquisitions; and some of them did not meddle with many diseases. Moreover, they warned me not to suffer my self to be terrified with any feare of detractions or calumnies. That such as were void of all vertue themselves, did render themselves infamously famous among such as themselves, by detracting from others. That envious persons void of like good themselves, did prostitute their own fame by gnawing upon the glory of others, &c. Touching the *Structure*, understand in short, it was my desire to bring into a smal compass, the Brief delination of al diseases in a manner, with their signs, causes, differences, and Cure; that the diligence of the forenamed Authors might be joined hereunto. Among Diseases I thought fit to put *external ones* in the first place, both because tis fit to begin with such things as are best known to sence: and because tis thought the first practice of Physick that ever was, was conversant about them or *Chiron* is reckoned to have been the first Physitian that ever was, and had his name from the most excellent skil in Chyrurgery. I have marshalled the Signs before the Causes, that I might assist the natural method of humane Conception, in the finding out of things, when this or that symptom is related, I enquire into other signs. The disease being known, I proceed to the variety of Causes. I have endeavored to reduce al to the Differences, both that the disease might be thereby more exactly known, and the diversity of the Cure more accurately expressed. If you shal ask what *Authors* I follow? you may please to take notice, that I did long since Collect this Introduction to the Practice of Physick, out of the Volums of *Daniel Sennertus*, that most

renowned Physitian; whose method and order I do now also, welneare in al things, follow. With him I have compared, *Fernelius*, *Joel*, *Capivaccius*, *Liddelius*, *Aquapsndens*, *Petræus*, *Ferdinandus*, *Fabricius*, *Martinus*, *Collutius*, *Fracastorius*, *Fallopius*, *Quercetanus*, *Zacutus Lusitanus*, *Crucius*, *Platerus*, *Septalius*, *Heurnius*, *Ferrandus*, *Hochstetterus*, *Untzerus*, *Mynsichtus*, *Beckerus*, *Hart-mannus*, *Stockerus*, and others; al which you shal find cited in their places. As for Medicaments, *I* have set down those which *I* have found most highly commended, by the best Physitians. Nor have *I* concealed such as in my Travels *I* have obtained from certain brave men, nor such as *I* found in the Study of *Mattheus Vechnerus* of blessed memory, cheife Physitian to the King, and my Father in Law; such a Physitian, as this Country of ours has hardly afforded his equal, and (which makes most of al to his praise) a man void of Dissimulation, Boasting, and pompous haughtyness of mind. And many times *I* have only pointed at the Medicaments by naming them and their Authors, that *I* might thereby provoke young Students to read the said Authors; and least that if *I* should have set them down at large, young persons would have abused them by a dangerous presumption. Concerning the *Use*, what it is, and when the student is to employ the same, *I* shal now speak. As to the former, you have here an *Introduction* into those vast works of *Saxonia*, *Mercatus*, *Massaria*, *Capivaccius*, *Radius*, *Sennertus*, touching the diseases of Mans body. This work wil serve instead of a book of common-places, into which al that a man reads, may be referred, as to an *Index*; whether they be such things as *I* have not touched, or serving to correct some error (for *I* beleeve *I* may easily have erred) enlargement, or clearing up of what is said. As to the latter, the student of Physick is first to be wel read in the Speculative Rules of the Art before he Practice. Also he is to have skil in the Nature of Plants, Minerals, Anatomy, and Chimistry. And this is that which *I* thought fit to acquaint thee with, Studious Reader. *Farewel.*

THE

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Mris. *Culpepers* Information, Vindication, and Testimony, concerning her Husbands Books to be Published after his Death.

SO great are the *Afflictions wherewith our* Heavenly Father *hath been pleased to exercise me his poor* Handmaid, *that I have not only lived to see my* dear Husband, (*the* Stay *and* Solace *of my Life*) *taken from me: but it hath been my hard hap also to see his* Reputation, *and* Memory (*which will be dear to al Posterity, for the Works he hath written for the Common Good of this Nation*) *blemished, and eclipsed, by the* covetous *and* unjust Forgeries *of one, who, though he calls himself* Nathaniel, *is far from being* an Israelite in whom there is no guile; *who was not content to publish a* Hodgpodg *of undigested Collections, and* Observations *of my dear Husband deceased, under the Title of* Culpeper's last Legacy; *but to make the Deceit more taking, he stretch'd his Forehead so far, and brased it so hard, as not to be ashamed to forge* two Epistles, *one in mine, and the other in my Husbands Name; of the printing of which, he nor I, never so much as dreamed: And yet he* impudently *affirmeth in my Name, that my Husband* Laid a severe Injunction on me to publish them for the general good, after his decease; and that they are his last Experiences in Physick and Chyrurgery. *And in the Title of his Book, he said,* They are the choycest, and most profitable secrets, resolved never to be published til after his Death. *All which Expressions in the Title and Epistles, are as false as the Father of Lyes; and every word in them, forged and feigned. And he knew wel enough, that no discreet, honest man, that was a friend to my Husband, or me, would ever have agreed to such pernicious and dishonest practices; and therefore I desire all Courteous Readers of the Writings of my Husband, to take notice of this* Deceit, *and to assure themselves that it never entred into his head, to publish such an undigested* Gallimoffery, *under the promising and solemn Name of his* Last Legacy, *and that* whereby he gained his Reputation in the World, *as the Impostor makes him speak in his forged Epistle. And I desire any indifferent Reader, that hath observed my Husbands lofty, and Masculine manner of expressing himself in his Prefaces, and Epistles Dedicatory, whether in case he had been minded or disposed to take so solemn a farewel of the world, as the* Forger *makes him to do; whether, I say, he would have done it in such a* whining fashion, *and so in the Stile of a* Ballade-maker, *as to say,* And now, if it please Heaven to put a period to my Life, and Studies, that I must bid al things under the Sun farewel: Farewel to my dear Wife and Child, farewel Arts and Sciences, farewel al worldly Glories, adiew Readers. *Certainly my Husband would have been far more serious, and material, in such a case, as any discreet man wil Judg. Neither can it be thought, that in such a solemn Valediction, he could possibly forget his wonted respects to the* Colledg of Doctors, *to whom he did so frequently addreß himself, in divers of his writings.*

Courteous Reader, *I shal say no more touching the abuse of the Book-seller, only to prevent (as much as concerns me) thy being abused for the future, know, That my* Husband *left* seventy-nine *Books of his own making, or Translating, in my hand, and I have deposited them into the hands of his, and my much honored Friend, Mr.* Peter Cole, *Book-seller, at the* Printing-Press, *neer the* Royal Exchange (*for the good of my Child*) *from whom thou mayst expect to receive in print, such of them as shal be thought fit to serve thee in due season, without any Disguises or Forgeries, unto which I do hereby give my attestation. Also my Husband left seventeen Books compleatly perfected, in the hands of the said Mr.* Cole, *for which he paid my Husband in his life-time: And Mr.* Cole *is ready and willing (on any good occasion) to shew any of the said seventy-nine Books, or the seventeen, to such as doubt thereof.*

And if any Person *shal question the Truth of any part of this Vindication, or Epistle; if they wil take pains to come to me, I wil face to face, justifie the truth of every word thereof, as I have subscribed my Hand thereunto in the presence of many witnesses.*

I protest in the presence of the great God, the searcher of al hearts, before whom Mr. Brooks *and I must one day give an account of al our Actions: That I have not published this Epistle or Vindication, out of any dis respect to Mr.* Brooks (*for I much respect the man, and would be glad to serve him to my power*) *but only to cleer my Husband from the folly and weakneß cast upon him by the means above expressed. And out of tenderneß to Mr.* Brooks, *I first tried other means of keeping, and afterwards of repairing my Husbands Credit, and then stayed long to see if he would repair (in any measure) the wrong done to my Husband, and my self. I desire to be.*

Your Servant (in,
and for the Truth)
Alice Culpeper.

From my House, next door to the Red Lyon in Spittle-fields, *October*, 18. 1655.

Mris. *Culpeper* did the 18. of *October*, subscribe this Epistle in Vindication of her Husband's *Reputation*, before Ten Witnesses, as she had done another Epistle on the ninth of *October*, almost in the same words with this, except neer the Conclusion.

These Books following are to be sold by PHILEMON STEPHENS at the Gilded Lion in *Pauls* Church yard.

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THE FIRST BOOK OF THE IDEA OF PRACTICAL PHYSICK.

Of that part thereof which we cal Hygieine.

Title I. *Of things not Natural, in General.*

Hygieine is a part of practical Physick prescribing the means and way of preserving and maintaining the Health, by the use of things not Natural.

Things not Natural we cal those, which albeit they are to be accounted and reckoned in the number of things Natural; yea, and moreover as such that are necessarily required both to defend and preserve the health while it is enjoyed, and likewise to restore and recover it when absent and lost; yet notwithstanding they do not any way constitute either the Essence, or the Nature of the body whilst it lives; but on the other side often affect and disturb the Body of Man, and impair the health thereof. From whence it is that some have distinguished and reduced them under these two Heads, viz. of things healthful, and unhealthful.

The *Prescription* is spoken to, and compleated in two parts. The *former whereof* enumerates and recounts those things that are not Naturall; and declareth in what manner they affect Mans body. They commonly cal this part, *Dietetical*, in reference unto the diet that is observed. The *other* openeth the Method of preserving the health, by shewing us the way and means how we may so use these things not natural, that they may not, in the least hurt or offend our bodies.

Of Things not natural there are four ranks or Classes. The first containeth those things that are taken and received into the Body. The second, those things in and about which the body is exercised. The third, such things as happen unto the body from without. The fourth and last comprehends those things that are voided forth of the body, to wit, the Excrements.

Chap. 1. *Touching things not Natural, that are assumed, or taken into the Body.*

Article, 1. *Of the Aire.*

THings not Naturall that are received into the body, are *Air*, *Meat*, and *drink*.

Air is a thing not natural, surrounding or encompassing the body of Man, and insinuating it self into it by certain pores and passages.

Touching this Air there are four things observable. First, that it is necessary to the very being of Health. Secondly, That it affects mans body. Thirdly, That there are many differences thereof. Fourthly, That it is subject and Liable unto divers changes and alterations.

And first of al, *That it is necessary and requisite unto the very being and preservation of health*, (yea indeed so far forth necessary, that if any one intercept the said passages of the Air into the body, it unavoidably perisheth in a moment or very short time) appeareth even from hence, to wit, that unless the heart should be cooled, and unless that the Internal fire or heat should be ventilated and excited, and lastly, unless the spirits should continually be refreshed and revived, a man could not possibly put forth, or exercise his Actions. Now the Air is therefore attracted by the Lungs, that it may qualify and temper the overgreat heat of the Heart. The same Air likewise by its motion (as it were with a Fan) ventilates & cooles the internal heat, so that it not only becomes more moderate, but is also thereby excited and stirred up. And lastly, the same aforesaid Air being from without attracted inwardly by the rough Arteries (usually termed *asperæ*) and first of al prepared and wrought upon in the very flesh of the Lunges, and next of al in the Heart and Arteries (those of them more especially that are in the Netlike folding (we commonly cal it *plexus retiformis*) and last of al (most perfectly and exquisitely) in the ventricles of the Brain, by its substance, generateth and produceth spirits.

Secondly, *It Affects the Body of Man after a twofold manner.* First, as it surrounds it either naked or clothed. Secondly, As it insinuates it self into the same, whether it be by inspiration, which is done either by the Mouth according to the taking in and putting forth of the breath; or by the Arteries, according to their dilatation and compression: or otherwise by Transpiration, which is performed al the skin throughout, and in each part thereof by those exceeding smal passages (not unlike unto those of a very fine sive) which the Greeks cal *Porous*, the Latines, *poros*; we in English pores.

Thirdly, *It derives its differences from the quantity, quallity, and substance thereof.* I. In respect of its *Quantity*, it is copious, scant, ful, which last *Hippocrates* (in his tract of breathings or blasts) cals *athrooteron*, that is to say, al at once and speedily breaking in upon us. II. In regard of its *Quality*, 1. *Hot*, and this augments the cholor, melts away the humors, weakens and hinders Concoction; and consequently by dissipating the Native heat it very much shortens the life. 2. *Cold*, which by shutting the pores or passages of the skin, and so hindering perspiration, excites putrid Feavers, or else by compression causeth destillations, forceth the Blood oftentimes out of the Veins, from whence proceed inflamations; and then it extreamly hardneth whatsoever is in the belly. 3. *More than ordinarily moist*, which heapeth up together flegm and store of Crudities. 4. *Over dry*, which (its true) wasts and consumes the superfluous humors; but again it breeds acute feavers through the abundant increase of sharp humors; and itlikewise exceedingly dryeth the skin. 5. *Corrupt*, whether overmuch exceeds in the first qualities, or else is rendered impure by reason of vapors arising from Lakes, standing waters, fenny and Mooriſh places; or else such as cannot be cleansed and purified by the through blasts of the wind. 6. That which is the best, which is *temperate in the first qualities*, pure, subject to no infection or polution, seren, clear, sweetly and gently stirred to and fro by frequent blasts and gentle gales of winds, and which is often times moystened with wholsom and healthful showers of rain. III. In relation to its *substance*, it is, 1. Thick, which for the most part intercepts the very sight, and hinders the prospect, so that either we cannot at al discern the starrs, or if we do, they appear unto us much less than at other times, or at least as much darkned and overcast. 2. Troubled or tempestuous, which hath divers of its thicker parts, (as it were made up of their moisture) violently hurried amidst the serene and cleer, by turbulent and tempestuous winds. 3. Thin, which is contrary to the former, transparent, serene, free from vapors, and throughly cleansed by the thorough blasts of winds

Windes. 4. Putrid and rotten, whether it be that it putrefie of its own accord, as wanting ventilation, (as for instance) that which is on every side shut up, and as it were imprisoned by high Mountains, or else that it becomes corrupted from some other cause, as suppose, from the Heavens, the Stars, the Winds blowing from infected places, or from some noysome pestilent vapor, &c. 5. Healthful and wholsome, which hath its original and its whol constitution from and under benign and healthy Climats, is stirred and driven to and fro by wholsom Winds, and is not in the least vitiated or corrupted by the vapors that proceed from any putrid and impure, whether things or places.

Fourthly, The Air taketh its *mutations* or Changes (which *Galen* cals Alteration according to the Constitution) from these ten things more especially.

First, From the *Stars* and Constellations; for both the Planets, and likwise the fixed Stars have in them much of power and influence upon these inferior Bodies. Concerning the influences of the former, we may at large read in *Porphyrius*, in the fourth Chap. of his paraphrase upon the Books of *Ptolomy*, as touching the effects of the stars. And *Hippocrates* writes that most Women conceive at the ful of the Moon. Touching the latter, to wit, the fixed stars, it is easily to be seen, and manifestly perceived even in the lesser Dog-star alone, the *Pleiades* & *Arcturus*. For upon the rising of the Dog-Star the Seas grow tempestuous & fluctuating, Wines work afresh and fluctuate in the Cellers, Dogs run mad, and the like. At the Setting of *Pleiades*, great Tempests and North-east Winds arise; and upon the Setting of *Arcturus*, storms and Hail.

Secondly, From the *different times of the year*, as wel the greater, which by the Physitians (in regard that they have in them the reason of the greatest changes and alterations proceeding from the rising and setting of the Stars of the first magnitude) are comprehended under a septenary or seven fold number; and are commonly reduced unto the Spring, Summer, Autumn, and Winter; as the lesser, to wit, Monthes, Weeks, and Daies. For the Spring is hot and moist. The Summer hot and dry. Rhe Autumn cold and dry. The Winter cold and moist. The Qualities of the Monthes ought to be taken from the sign of the Zodiack that rules, and hath as it were a soveraign power in them. The qualities of the Weeks are derived from the Quarters of the Moon; of which the first is moist, the second hot, the third dry, the fourth cold. The qualities of the daies from the parts thereof; of which the Morning part is in a manner spring-like, the Noon part like unto the Summer, the Evening thereof resembling the Autumn, and the night not unlike unto the Winter: howbeit there is in this but little of weight or moment, and therefore not much regard to be had thereunto.

Thirdly, *From the Winds*, and those aswel common, (of the which some are Anniversary, as keeping their course at one certain time every year; as for instance, those we cal *Chelidoniæ*, *Etesiæ*, *and Prodromi*, which two latter are Winds blowing out of the East yearly, at one certain time, and rising out of ground eight daies before the rising of the Dog-star) others that appertain, and are more usual in some Regions than in other (whether they be from the Earth, or from the Sea:) as proper; such as is that Wind which they cal *Chenerona*, unto those that live neer unto the river *Phasis* in *Cholchis*, *Attabulus* unto the *Apulians*, *Garbas* (a south east Wind) unto the *Sicilians*, *Japix* unto the *Calabrians*, &c. And there take notice, 1. That al Winds whatever do in their own Nature Moisten and refrigerate. 2. That they assume a different temperament (this or that) according to the scituation and condition of those places through which they blow. 3. That of the Septentrinal or Northerly Winds, (when they blow strong) that which we cal *Boreas* (being a ful North Wind) is the most vehement: those that blow at the half point are next unto it; of those that are Collateral, it is to be observed that *Boreas* is more warm and moist than the Easterly wind *Subsolanus*: and likewise that *Boreas* is more cloudy than the West Wind *Favonius*. 4. Of the Oriental Winds, which moderatly heat and dry, when they blow from the Earth even these (when they rise from the Sea) do moisten. That called *Eurus*, which blows from the East in the Winter season, receivs somwhat of the nature of *Auster* or the South Wind; & *Cæceas*, that blows from the East in the Summer season, retaineth something of the Boreal or Northern Winds, & is stiled the Gatherer and driver together of the Clouds. Unto the Easterly Wind *Subsolanus* (that blows from the East at the Equinoctial, that agreeth (and may be said thereof) which hath been said of the Winds in general. 5. The Occidental or Westerly Winds are moderatly cold and moist. But in *Vasconia* they are so hurt-

hurtful and dangerous, that they seldom or never blister there, without causing dread and terror unto the Inhabitants thereof. 6. The Meridional or Southerly Winds are Watrish, Cloudy, and such as cause al sorts of Diseases: yet notwithstanding, that which we cal *Phenix*, is less baneful than the *Libonotus*, in regard of its neer approach unto the *Subsolanus*. See (at large and accurately discoursing of these) *Berulam, and Frederick Bonaventure.*

Fourthly, *From the other Meteors.* For these Meteors, if they be pure, such as are the burning and flaming torches, the Arrows, Flying Dragons, they produce and cause Fire; and immediate Heat and Dryness of the Air, that I may speak nothing of their pestilent corrupting Quality. If they be impure, such as are the Comets, Thunders, Lightenings, they cause droughts, Pestilences, Barrennesses, Flouds, excessive Heats, &c. What power there is in the Aereal Meteors, and what they can do, hath been declared before in their proper place: Let it suffice therefore to have added this one only thing, to wit, that Plagues and Pestilences are wont to arise, and follow upon great Earth-quakes: concerning which, see *Seneca*, in his sixth B. 11. quest. Chap. 27 and 28. Of the Watry Meteors, Rains if they be of long continuance, they most commonly bring in and cause the putrefaction of the Air. The Dew if it be more frequent than ordinary, generats hurtful and destructive smal Worms. Frost discoloreth the buds of Vines, and the Ears of Corn, and maketh them to look black. Snow maketh the Air thick and gross. Touching these, Consult *Fromondus*, *Keckerman*, and above al, *Cabeus.*

Fifthly, *From the Zones*, of the which therefore one is called the *Torrid*, another the *Frigid*, and a third the *Temperate* Zone. As for Regions of the Torrid Zone, by reason of their excessive heat, the Ancients thought them to be uninhabitable: but we have known the Contrary; and have found them (in regard of equality of the Nights with the Dates, the frequent falling of showers, the scituation of the several parts and places therein distinguished by Vales and Mountains, the neerness of the Ocean unto them, & lastly the gales of Wind that sweetly and gently blow as wel at some certain and constant seasons, as at other times extraordinary) to be very Commodious and fit for habitation. The Hollanders have discovered and learn'd the state and condition of the Frigid Zone, when as they sought out a passage into *Cathaia* thorow the Icie Ocean.

Sixthly, From the *Climates*, which are nothing else but the spaces of the Earthly Globe between two Paralels towards one and the same Pole, distinguishing Regions one from the other (in reference to their distance from the *Æquator*) by the space of half an hour in a day, albeit that this difference is not perceptible, or at least not easily discerned, in those Climates that lie and approach more nigh unto the Pole: of al which Climats, the seventh, that runs thorow *Venice* and *Millain* between the twelfth and fourteenth Paralel, is held to be the most temperate: yet not because it is not subject and liable unto any excess or mutation; but in regard that it admits not of such exceeding great Vicissitudes & changes, if we compare them with the Tempests of the extream Regions. And yet notwithstanding a due respect and special regard is to be had unto the proper scituation of each particular Region, because of the general sight and position of the places.

Seventhly, From those *Regions* of the World that are called the Cardinal Regions. For the Oriental Regions are indifferently temperate; and they have clear and pure waters, of a sweet smel; and the inhabitants thereof are wel favoured, sound, and their Women very fruitful. On the contrary, the Occidental Regions are extream sickly and unhealthful; they have thick and muddy waters, and the people thereof are of an il color. The Meridional or Southerly Regions abound with store of waters somwhat salt, sublime, and they that inhabit in them are evermore subject to moist heads, and obnoxious to a flux or loosness of the Belly. The Setentrional or Northern Regions have their waters harsh and cold; the people thereof are dry, long-liv'd, and of a tall stature. The Oriental Regions are more healthy than the Occidental, as wel because the Sun in its vigor dissolveth those moist vapors that it drew up at the rising thereof; as also in regard that it doth not only not dissolve those which al the day it hurrieth along with it self towards the West, but likewise that it excites and stirs up many more vapors in the West, and so leavs them; as also because that there many more vapors drawn up in the occidental, than there are in the Oriental part of the World, in regard that there are in the West far more and (those) far greater Seas, than in the East.

Eighthly, From the *parts of the World, Kingdoms,*

Kingdoms and Provinces. For it often comes to pass, even from the very situation of several places, that those which are accounted wholsom and healthful unto one certain place, are found to be baneful unto another part. So the cold north-east wind is unto the Europeans most serene and clear, but in *Libian* region it is exceeding cloudy; and again the south wind is unto those Lybians very hurtful, and so is the south west wind unto the *Bascomians* very pernitious, but on the other side very gratful and welcom unto the *Gretians* and *Italians*.

Ninthly, From *Cities and houses.* And hence it was that the *Caunians* (a people in *Cavia*) through the default of the Air there, became so wan and pale, that there was one heard to say, that dead men walked in that country. Again, the Sun in the summer getting up to a greater heighth entreth not at al those houses that stand to the South; but then (in the winter season) approaching neerer it altogether and wholly shines thorow their windows. And therefore dwelling houses ought in a different manner to be erected, according to the diversity of the inclinations of the several regions in the world.

Tenthly, From the *particular constitution of places.* Where observe, 1. That places standing high, enjoy a pure Air, as being cleansed and purified by the winds that blow throw it; and therefore those places produce and nourish strong, lusty, and long lived inhabitants, by reason of the want and absence of moist excrements. 2. That steep down hil places depressed and (as it were) pend up between other mountaines, are in the summer time even suffocated with the reflexed sun-beames; and in the winter (by reason of the suns absence) are annoyed with overmuch moisture, and thick, clouded vapours. 3. Places that are plain, if so be they have on al sides every thing fit about them, they have then no other property, but that which is taken from the observation of the Climates. 4. Those places that are rocky and open, in the summer have the Air hot, but in the winter cold, & so thin and subtil, that almost no vapours can be elevated and drawen up out of rocks. 5. Places Mountaineous and high are snowy, and therefore healthful by reason of their snows; but when these melt away, those places becom very much clowded. Now if those Mountains are situate to the North east, then those places wil be hot by reason of the reflected sunbeams; but if to the south, and that the winds blow from the North, then those places by means of the snows and winds, are cold, dry, and sound, unless something else hinder. If to the East, then they are cold, because they ruled and swayed by the East. Their Air is thick both in regard they are nigh unto Mountains, as also because they lie open unto the Western Winds. If they be situate to the West they are therefore healthy in regard that they are then exposed unto the oriential or Eastern winds. 6. Those places that are woody are infested with a thick, suffocated, cloudy and turbid Air: among the trees, the Nut tree and Oak are more especially hurtful. 7. Those places that are neer adjoining unto rivers do moisten overmuch. 8. Such places as are fenny, and abound with lakes by reason of their filthy noysom vapors are very apt to generate diseases. 9. Those places that are nigh unto the sea are thought to be healthful in regard that saltness resists corruption and the winds do evermore throughly purge the Air, & because likewise that the Sea in the Winter and in a cold Region renders the Aire warmer than ordinary; but on the other side (in the summer time, and in a hot Country) it makes the Air exceeding temperate. 10. *Cardamus* hath left it for a Truth unto us, that those that are ful of hot Baths do viciate and corrupt the Air of the place, howbeit not so far forth that they hurt those bodies that are strong and able (which are not hot) by reason that they are altogether free from putrifaction. But of these see (I pray) and read (*next after Hippocrates*) *Renatus Morean* learnedly and excellently discoursing of them in his Tract upon *Schola Salernitana.*

Article, 2. *Of Meat.*

Point. 1. *Of the differences of Meats.*

Meat is a thing not Natural, restoring and augmenting the substance of Mans body.

Concerning it there are these five things to be explained. 1. The various *differences* thereof. 2. The *kinds* of it. 3. The *Seasonings* or *sauces* thereof. 4. *Bread* it self. 5. The *time of repast*, or taking of this meat.

The *differences of Meats* are various. I. In regard or its substance it is, 1. *Hard* which is not concocted without much difficulty, but it is easily corrupted. 2. *Soft*, which easily and soon receives a taint. 3. *Heavy*, thick, and gross; and this heaps up a juice, that is thick, fibrous, and earthy. 4. *Viscid, and clammy,*

clammy, which is very difficultly distributed into the veins. 5. *Firm*, which truly makes a supply of much aliment or nourishent, but then it stands in need of great store of heat and strength of Nature for Concoction. 6. *Infirm*, which indeed is easily and soon concocted, but then it breeds and supplies either very smal nutriment, or at the best, such as is transient and of short continuance. 7. *Hard, or easy of digestion*, which accordingly is hardly, or with little difficulty overmastered by the heat of the stomach. 8. *Hardly or easily to be corrupted*, which accordingly (either through its own default, or else by reason of some weakness in the stomach, or lastly by means of some distemper proceeding from things therewithal mingled) is either easily or difficulty corrupted. II. In respect of its *Quantity, it is, I. Overmuch*, Either as it reters unto the capacity of the vessells, as it is al of it converted into blood, but then by reason of the too great abundance of humors it threatens the danger of suffocation or choaking, &c. or otherwise as it respects the strength of Nature governing and ordering us; which kind of excess breeds very many Crudities of al sorts. 2. *Too little*, to wit, when either we use but little food, or those meats of little nourishment; or else when we take them not often enough; and this evermore diminisheth the natural strength and powers of the body. 3. *Moderate*, which preserveth the substance of the body, defends the Native heat and maintains the lymmetry of the humors; it likewise sets bounds unto the Excrements, in receiveing of which we are sayd to use a mean, & moderation, when we eat not to satisfy. III. In regard of *its qualities*, it is, 1. *Hot*, which attenuates and makes thin those humors that are thick, cuts and divides in sunder those humors that are temperate. 2. *Cold*, which indeed tempereth the boyling heat of the blood and of the stomach, but suggests matter of windiness. 3. *Moist*, by the which the dryness of the parts is amended, and the belly loosened. 4. *Dry*, which though it be not so easily concocted, yet it affords a fast and firm nourishment, and brings a supply of Melancholly Juice. 5. *Sweet*, which indeed (at least, if it be wel compacted) nourisheth, but withal causeth obstructions of the Liver and spleen. 6. *Salt*, which preserves from putrifaction; but if it excessively taken, it burns the blood, and excites a kind of itching. 7. *Bitter*, which clenseth, and cuteth. 8. *Sharp*, which freeth those parts that are obstructed, increaseth choller, and excites salt and sharp fumes. 9. *Acid*, which cuts, & if it be simply such draweth the thick Juice downward; if it incline toward a sweetness it mollifieth and loosneth the Belly; if it tend toward a sharpness, then it is astringent and binding. 10. *Sowr and Austere*, which if it be taken in before other meats, bindeth; but looseneth if eaten after food. 11. Meats that afford a *good or ill issue*, 12. That which is *simple* or *Physical*; which besides the vertue it hath to nourish, hath likewise the power of altering. 13. *Unwholsome*, from the which there is an ill Juice generated, and such as easily putrifieth. 14. The *Best which is concocted*, affords much nourishment, and that nutriment that it yeilds is of the best; and is not easily corrupted, or depraved with any hurtful quality; and then again it leaveth behind it but very few Excrements. IIII. In respect of *its preparing*, it is, 1. *Crude* or raw, which to this very day the *Abyssines*, *Scythians*, and divers other of the Barbarians take great delight in. 2. *Rost*, the which alone the Peers of Troy are said to have fed upon during the time of the Trojain War; which yields a dry aliment and oftentimes hindereth the passing forth of the excrements: and this if it be extracted forth of the veins, and so shut up on every side that it can by no possible means exhale, it is then in this case very prejudicial and hurtful unto the Body. 3. *Toasted* or broyled, which is over adust, or two much burnt. 4. *Fried*, which with some other kind of external Moysture is dressed in the frying pan; and very sweet (in good truth) it is, by reason of the fat Moisture that attends it: but then again in regard that it doth not so conveniently send forth, the internal superfluous Moisture, but rather attracts and sucks in more of that that is External and superabundant, it is therefore hard of concoction, sending up a savor from the stomach to the Mouth, and burning up the blood. 5. *Boyled*, which indeed (as to the inner part) is dryer than the former, and yet notwithstanding by reason of its external humidity it moisteneth. 6. That which is *Strangled and suffocated*, if it be fitly and equally boyled, it then generates a laudable, temperate Juice, and such as easily finds a passage whether it ought to go. 7. It is either *sauced or not sauced*. But as touching Condiments or sauces, we wil treat further of them in the ensuing discourse.

Point,

Point, 2. *Of the sorts or kinds of Meats.*

The species or kinds of meats are taken, 1. *From plants.* 2. *From birds.* 3. *From four footed Beasts.* 4. *From Fishes.* 5. *From bloodless creatures.*

I. *Plants are,* Bread-corn, *al sort of pulse potherbs, and fruits.*

I. Unto *bread-corn* there appertain, 1. *Wheat,* Which is hot and moist, yielding very much, firm, and most wholsom nutriment. The Clamines thereof, if any such there be in it, is quite taken away in the due preparing of it. 2. A grain very like unto the former, commonly called *Spelt,* which in its nature and property is next unto Wheat; and nourisheth more than Barly, but less then Wheat; of it is made that we cal Barly broth; but others cal it frumenty. 3. *Rye,* (which by others is termed *Ragga*) out of which in very many places there is a certain kind of bread made; it is hotter than Barly and nourisheth more than it, but it is harder to be concocted then Wheat. 4. *Barly,* out of which is made that spoon-meat which we commonly cal Ptisan, an excellent wholsom kind of food, opening and cleansing the passages, and easily transients; but yet nevertheless being somwhat thin of substance, it is therefore held to be the less fit for the preservation & lengthning of the life. 5. *Oats;* which heat, afford good and commendable aliment, and stop the lask or flux, of the Belly. In some places there is a spoon-meat prepared & made herof (a kind of gruel) with cows milk, Goats Milk, or else with the juice of sweet Almonds, (commonly called Almond milk) and sugar. We use to bruise this oatmeal, and so to eat it in flesh pottage. 6. *Rice,* which by the Eastern people is for the most part made into bread. It is temperate and with milk nourisheth very much; but is more difficultly concocted, and yieldeth a thicker kind of juice (which is therefore the more apt to obstruct) and increaseth the seed. 7. That which we cal *Saracen breadcorn,* which indeed sufficiently and fitly nourishith such as live by their labor, but withal is hardly digested, begets windiness, and is hurtful to the eyes, 8. *Millet* or *hirse,* which is cold and dry, binds the belly, and is not digested without some difficulty. 9. That which we call *Panick,* like unto the former; but yet of nothing so wholsome a nature and property as the Millet; notwithstanding being beaten and bruised in a Mortar (or otherwise;) and throughly purged & cleansed from its branniness, it then affords a kind of pottage not much to be contemned, or loathed.

II. Of the *Pulse,* there are, 1. The *Beans;* which are Cold, Dry, and Flatulent or windy. They are of a crude and raw Nutriment, but withal such as is very abstersive, and hard of Concoction, and rendering the sense dull and stupid, and the sleeps turbulent; and therefore an utter enemy to such as are studious, and live sedentary lives. Those of *Leyden* break them with a Mil, boyl them throughly, and being hulled they then make them up into a certain thick white substance for their use, and spending. 2. *Pease,* which are cold, dry, and windy, especially those that are green: they are Experimentally found to hurt the Nerves; the Broth or Pottage made of them is better than their substance. 3. *Lentils,* which generates an Aliment that is both cold and thick, of hard digeston, filling the Head with gross Vapors very hurtful to the Eyes, and the breeder of much thick blood; especially if they be Eaten with Salt flesh. 4. A smal *Pulse* called *Cicers,* which by Reason of their abstersive faculty, are most commonly sought out, and made of for Physical purposes. *Dioscorides* writeth that those that use them, thereby gain a fair & fresh color. 5. A sort of *Pulse* yet smaller than the former, called *Chichlings,* which obtain a mean, and stand (as it were) in the middle place between those kind of meats that are of good or ill Juyce, and easily or with much ado concocted, and converted into nutriments. 6. *Vetches,* which suggest a gross and thick Juyce, and such as is only fit, (and good for nothing else) to generate black choler or Melancholy, and to render the Body costive, through overmuch binding the Belly.

III. *Under Potherbs, and in the Number of Garden Plants fit for Food, Herbs or Leaves, Stems or Branches, Roots, and Fruits, are Comprehended;* For as touching Seeds, I shal here speak nothing of them. I. Among *Leaves* and branches, are, 1. *Lettuce,* which of al Pot-herbs is absolutely the best, and yieldeth more matter for the generating of Blood, than other Pot-herbs; by its coolness it excellently qualifieth and allayeth the boyling heat of the stomach, procureth sleep, and tempereth the heat of the Kidneys: But if a man feed too much thereon, it then extinguisheth the seed. Two ounces of the Juyce hereof taken at once, or for one Dose, Kils unavoidably. It is Eaten raw, with Oyl, Salt, and Vinegar. 2. *Endive,* which (according

(according to the Opinion of *Galen*) hath its qualities like unto those of the Lettice aforesaid. In other places, it is far fetcht, and stored up until the winter months. For in those places their custome is, with a smal threed, to bind together round like a Globe the Leaves hereof so soon as they are come to perfection, and so to preserve them covered in earthen Vessels. 3. The *Colewart* and *Cabbage*, which is cold and dry, hard of concoction, which affords an Aliment that is thick and gross, that exhales up into the Head Fuliginous Vapors, disturbeth the sleeps of those that eat it, and extreamly weakeneth and Dulls their sight. Its hurtful quality may be corrected, if we take it Boyled in flesh Pottage. The Juyce thereof hath in it a tart Acrimonious quality, & such as excites and provoks the Belly to void its Excrements. That which hath its Leaves spread al abroad, is far wholsomer and better than that which groweth al of a Head, which for distinction sake we cal the Cabbage. It is allowed to be eaten by working and laborious people, but then for a corrective, Pepper must be added and eaten therewith. 4. *Spinach*, or *Spinage*, which cools and moistens, generateth ferous or wheyie humors, and is somwhat offensive by its treasuring up windinesse unless you mingle therewithal (for a corrective) Pepper, Salt, and Butter. 5. *Mallows*, which yeildeth little nourishment, causeth a flux and loosnes of the Belly, and borrowerh a grateful & acceptable tast from butter and other Condiments. 6. The like may be said of the herb *Arach*, or *Orach*, and *Blite*, which latter is likewise a kind of Spinach. 7. Beets are cold and dry, and of different parts; the Juyce thereof cleanseth, the substance of it bindeth the Body; howbeit it removeth the obstructions of the Liver and Spleen. The Ancients were wont to add thereto Wines and Pepper. 8. *Asparagus* or *Sperage*, unto which the tender young branches of the Hops are very neer of kin, as being of a temperate Nature; they afford but little aliment, and that likewise none of the best; this Asparagus is very grateful to the pallate, excites and provokes the appetite, it cleanseth, expels Urine, and purifieth the Kidnys. 9. *Water-cresses*, which by reason of their heat, are commonly used instead of a condiment or Sauce. *Æquineta* hath added this further of it, to wit, that it is an enemy unto the Stomach, and that it breeds an il Juyce. In time past, the use of it was wont to be very frequent and familier with the *Persians* in their ordinary diet. 10. *Mustard*, which is of a tart and sharp tast, and is withal most apparently hot and dry. And thereupon it is placed and recounted among those Condiments or Sauces which attenuate thick and gross meats. It is in the Vintage time mingled and throughly moysined with new Wine or Must, from whence it hath the name of Mustard. II. *Of Roots there are*, 1. The *Onyons*, that afford but very little nourishment; but they are of a hot nature, they cut, attenuate, heat and inflame the Blood, and the thinner parts of them being discussed and scatterred, they leave behind them a gross and thick Juyce, they incite and provoke unto Venery, cause distracted and turbulent dreams; and are very offensive unto the Head, Eyes, Teeth and Gums, especially in those that are cholerick. 2. *Garlick*, which in the Month of May is by many of the French eaten with fresh butter; and of which beaten together with Wal-Nuts in a Morter, they prepare and make that Garlick sauce that we term *Alliatum*. In Garlick crude and raw there is not Aliment at al, and in that which is boyled there is very little, and that also none of the best. By its extraordinary great heat and dryness it attenuates and cuts asunder the thick Humors; and moreover it is a most exquisite Remedy for the correcting of the pravity, of waters that are gotten together in the Abdomen or Belly, and a special help and means for the enduring of cold. 3. The *Leek*, which hath almost the same properties and qualities with the Forementioned. It is chollerick, and greatly hurtful to such as are of weak Brains; it duls the sight of the eyes; and being often eaten it begets choler of a Greenish color much like unto the Leek it self. If it be in the beginning of the meal Eaten raw with Salt, it then freeth the stomach and Belly from gross and thick Juyces. 4. The *Reddish*, which together with Salt we use to eat raw. But it is fitter to be used instead of a sauce or sallad, in regard it is extraordinary hot, and withal sharp and tart, tiring and wearing out the Teeth. It collecteth together the scattered spirits, breaketh the windines of the stomach by causing ructures or belchings, provoketh Urine, and expelleth the gravel out of the Kidneyes. That Garden Raddish is accounted the best which is brittle and easily broken. Unto the former may be added the wilde or horse Raddish which hath in a manner the like vertues and properties with the Garden Raddish, and is more frequently made

made use of for a sawce than for food, affording little or no Aliment. 5. The *Rape Root*, which yieldeth nourishment enough, to wit, Hot, and moist; but then it is more slowly concocted (more especially that which is raw) and puffeth up the Belly. It is sometimes kept until it be withered, and then made use of. 6. The *Navew* or *Turnep*, which affordeth more Nutriment than the former, and hath in it less of the thick and flatulent Juyce than the Rape Root, provoketh lust, and excites unto Venery. 7. The *Garden Parsnips*; which yieldeth but little Aliment, and that likewise thick; and its Juyce is none of the best. It furthereth the Expulsion of Urine, stirs up Venery, and expels forth the Causes. 8. The *Red Beet*, which being boyled or pickled up with Vinegar, Caraway Seed, and Horse Raddish Root, is presented and set upon the table in the place of a grand sallad, rather than as a meat, since that it very little, or nothing at al nourisheth.

III. *Of Fruits, there are*, 1. The *Artichoke*, which heateth and dryeth in the second degree, is hard of Concoction, and the Juyce thereof none of the best. It is by some Eaten raw with Salt alone; but by others they are Boyled, and then they add thereto Pepper smal beaten, and Butter; if it be Eaten with Vinegar and Oyl it expels and drives forth abundance of Urine of a stinking Savor. There are some of Opinion, that it excites the appetite, and restoreth it when weakened and wel nigh lost. 2. The *Gourd*, which affordeth an Aliment more than ordinary cold and moist, and therefore such as is transient and stayeth not long in the body, but soon passeth throw. When it is corrupted in the stomach it is then converted into a very Malignant Juyce. Yet some there are that conceive these Gourds to be less dangerous and hurtful than Cucumbers. They are oftentimes sent to the table either rosted or fryed. The longer and lesser of them are the more grateful, and indeed the more wholsome; such as grow and increase after their hanging up, have in them but little or no Seed. 3. *Cucumbers*; which are cold and dry. *Galen* was of Opinion that these were never to be allowed of, or admitted by men in their common Course of Diet; but that they were evermore to be banished from their Meals, as most dangerous and baneful. For they abide unconcocted in the Stomach until the day following. Yet notwithstanding they may not unfitly be Eaten (but they are rather thought to be very commodious and proper) if while they be yet green, and before they be ripe, you take them in salads, after they been a while kept in a Pickle made of Vinegar and Pepper, and they are then least hurtful unto those that have their stomack over hot. The Venetian Physitians prescribe them against Pestilential Diseases by them to cut and divide the Humors. 4. *Melons*, of al sorts (but principally the Musk-Melon) which are both grateful to the Palate, and withal send forth an Aromatical or sweet smel; but in regard that they abound with water from their Humidity, they are thereupon easily corrupted; and being once corrupted they degenerate into a Poysonous Nature, and thereby excite store of Choler. And therefore they ought to be taken in the first beginning of Meals that so they may the more easily pass through; and then we must be very careful to put nothing upon them but meats of a good Juyce, and then after al to drink one draught or two of the best Wine. 5. *Straw-berries*, which are moist and cold, of a thin Juyce, and such as is soon and easily corrupted in the stomack. They cool the stomach and Liver when they are overhot and cholerick; they restrain and qualifie the heat of the Blood and Humors, allay the vehement thirst, drives forth the Urine, and cleanse the Reins. The best and fittest time to Eat them is in the beginning of the Meal. They are now and then Eaten with Cream and Sugar; but most usually (as the better way of taking them) they are Eaten out of Wine. 6. *Capers*, which if they be fresh and new, do the more effectually nourish, and loosen the belly. If they be eaten with vinegar and oyl they excite and Whet on the appetite unto a desire after meat, they remove the obstructions of the Liver and Spleen, and carry forth that Flegm that is conteined within the Cavity of the Belly.

IV. *The fruits of Trees, are*, 1. *Apples*, of which such as are sweet tasted, and withal sweet smelling, yield an indifferent quantity of Aliment, and are a good remedy against al sorts of Melancholy Distempers. Such of them as are sharp and sour are cold, and extreamly windy. Those of them that are rough, harsh, and not Mellow, are of a thicker Juyce, and therefore descend over slowly into, and through the belly, albeit the Force and strength thereof was qualified and corrected by the first Concoon. Such of them as are wateriish are of a most corrupt Juyce, and have no tast at al in them. 2. *Quinces*, which are cold and dry, of smal nourishment, and of hard digestion; if they

be eaten raw they are very hurtful to the sinews; if they be taken in the beginning of the meal they render the belly Costive, if after meat, then they loosen the belly, and shut the mouth of the stomach. 3. *Oranges*, which if sowr they are usually put into sauces, and being therewith mingled they are of singular use, both for the stirring up of the appetite, and for the removal of the stomachs nauseousnes and loathing: but if sweet they are not then to be squeezed into sauces and so eaten with other meats; but how ever we use them they are of singular bennefit in helping Coughs, and easing the jaws when exasperated and inflamed. 4. *Pears*, which if sweet, they are then of a more moist and cold nature (the muscatel or muscle pears only excepted, which are hot, and more obnoxious to corruption) if they be harsh and sowr, they binde and cool the Belly, & are hurtful to the stomach & the Intestines: they are the better if eaten boyled 5. *Medlers*, which are cold and dry; those therefore alone of them that are milde and mellow are to be eaten; and these afforde but very little nourishment, and that likewise hard of concoction; they are good to stop a vomiting, when there is occasion; and they are also very fit and convenient for a hot chollerick stomach, 6. *Figs*, which are hot and moist; these nourish more then other fruits, and easily descend from the stomach, and pass out of the Belly; and if they be eaten into great abundance, they excite and generate windines. Those of them that have been kept a while til they be dry (we usually cal them *Caricæ*) have in them such an abstersive and clensing quallity, that oftentimes they cause that flux that we cal the Lientery, drive forth the humors unto the exterior parts, provoke unto sweats; and if much eaten they produce a smal sort of lice. 7. *Peaches* (or Persian aples) which are al of them cold, and moist; they nourish but little, and are soon corrupted; such of them as are new and fresh to be eaten before meat; those of them that are dryed or boyled do in some sort lose and lay aside al the il quallity that is in them. 8. *Abrecotes*, or *Apricocks*, (the Ancients caled them Arminian Apples) which are reputed better than Peaches, and more acceptable to the stomach. 9. *Prunes*, the which al of them are cold and moist: The sweeter of them mitigate choller, are easily concocted, and descend through the belly: such of them as are white, and in color like unto wax, are the worst and vilest sort of them al; those of *Damascus* (we cal them damaske prunes) and *Hungaria*, are the best sort of them. While they be new they have in them an excrementitious moisture; and if they be eaten raw; they yield a worse kinde of Juice, and (to speak truth) they over much loosen the retentive faculty of the stomach; but being dryed they are much the fitter for nutrition or nourishment. 10. *Cherries*, which if they be sweet, by reason of their abundant humidity, they are soon corrupted; and so come to generate a sort of smal long worms, and putrid feavers; if they be sharp and sowre, they cool, qualifie the heat of the Liver and stomach, are easily concocted, and pass through the belly, stir up the Appetite, neither do they afford any il Juice. 2. *Mulberies*, which moisten, cool, nourish but little, descend easily through the belly; and therefore in regard that if they be long reteyned in the stomach, they soon corrupt and putrefie, they must only be taken in upon an empty stomach, that is free from cholerick humors. 12. *Grapes*, which if sweet, they are then the hoter, and excite thirst; if they be tart and sour, they are then (by so much) the colder; if ful of a winy Juyce and substance, they are then of a mean quallity and temperament betwixt the two former. If they be new, they afford but little nourishment, lift and swel up the spleen, beget the chollick, and if they be detayned in the body beyond the due and convenient time, they fil the liver and stomach with Crude humors. If they be dryed (we cal them raisons of the sun) those of them that are only sharp and sowr bind the belly; such of them as are sweet afford greater store of nourishment; but those of them that are both sweet and austere or somwhat sharp, are the more excellent of them al, as agreeing with the Liver in their whole substance, and exceeding benificial unto the Breast. *Corans*, which being without stones ad more strength to the body. 13. *Olives*, which being pickled are of excelent use to provoke the appetite, and are more easily digested in the stomach. Those which are most astringent, are used after meals, that the mouth of the stomach being thereby strengthened, the meat may be the sooner passed downe into the belly. 14. *Almonds* which if they are bitter, they exceedingly provoke urine, and by their bitterness breed a loathing of meat; if they are *sweet*, they are hot and moist, yeild plenty of good nourishment, and are therefore good for those that are in consumptions, and very lean. They are not good in chollerick feavers, nor in an hot stomach. 15. *Chestnuts*, which are hot and dry, hard to digest, yeild good nourishment if wel digested

gested, but it is hardly distributed; if they are eaten in too great a Quantity they engender wind. 16. *Walnuts* are hot and dry. Such as are new, because of their moistness are best eaten with salt. The *drie* are eaten after fish, the moisture whereof, they do with their dryness temper. They breed choler, and make rough the mouth of the stomach, the gullet and the wind pipe. 17. *Haselnuts* and *Filberds*, are colder than walnuts, and afford more nourishment, are hardly digested and breed an earthy juice. To these may be added, *Mushromes* and *Toad-stooles*, which are for the most part cold, tastless, of a thick and watry nourishment. Eaten not without danger, both because they are of bad juice, and because they are sometimes venemous.

II. *Birds* which are mans-meat, are either *Land* or *water* fowl: they afford us their *flesh, other of their parts*, and *Eggs*.

I. In *respect of Flesh, among water-fowles*, the cheife that afford us meat are, 1 The *Duck* both tame and wild, which breed a thick and melancholy juice, stop the veins of the mesentery and spleen, and are apt to breed Quartan Agues: especially such of them as are continually in the dirt and mud. 2. The *Goose*, which if it be tame, is of Excrementitious juice, and apt to putrify, but the tame more than the wild. The best of those which live and feed alwaies on Land, are, 1. *Poultery*, because they have temperate flesh, of good juice, and little excrement. Where note, 1. That the flesh, of their bodies, is the best of al other, and comprehends the praise of all birds, as to feed. 2. That Henns are dryer, than the rest. 3. That the flesh of Cocks is harder and dryer, especially that of old Cocks, whose broath purges the belly. 4. That the Turkey-cock is not inferior to a Capon, either in tast, or goodness of juice; being good for such as are recovering out of sickness, the sweetest parts of them are the breast and the belly. They are variously crammed fatned and dressed with Oisters, spiced, with gelly, with white-broath, boyled, roasted, fried, pressed, distilled. 2. The *Partrich*, whose flesh is temperate, enclineing a little to dryness, of easie digestion, of excellent juice, much nourishment, little excrement, and which is well given to such as are upon recovery, and as are troubled with the whoremasters Pox. 3. The *Pheasant*, which equals a Capon in goodness of flesh and juice. 'Tis commended in Autumn and Winter, being better in the wings than legs. A pheasant Chick is sweetest, when it is six or eight weeks old. 4. The *Heath-cock*, whose flesh is of the same nature with the former. And is very fit meat for such as are recovering after sickness. 5. *Pigeons* whose flesh is of a thick, melancholick and excrementicious juice, nor easily digested, nor good in putrid Feavers. The Mountaine and wood-pigeons are best. The *Turtle dove* affords little and thin juice, the older of them, breed Melancholy blood. 7. The *Lark*, which engenders excellent juice, and is easily digested, it is thought by a peculiar faculty to preserve from the Cholick and to cure the same. 8. The *Black-bird*, whose flesh is little inferior to that of kids, in sweetness, easiness of digestion, and goodness of juice, 9. The *Quail*, which is hot & moist, hard to digest, of evil nourishment, much juyce, much excrement, affording matter for fevers. 10. The *Thrush*, which *Galen* allows such to feed on, as are of a leane and thin habit of body. *Apicius* terms their flesh diabolical, because it smells strong of Hemlock. They are taken very fat, when Grapes begin to be ripe. 11. The *Sparrow*, which some are delighted with at all times, but in winter especially; because they are in the summer by reason of their Lecchery, leaner, dryer, and hotter than at other times.

II. The *Parts of Birds* are, 1. The *Combs*, which are proper to poultrey alone. *Galen* reckons them among such meats as no man wil commend or dispraise. They are thought to incite such as are slow, to generation. 2. The *Wings*, which because the superfluous and crude moisture is wasted away by exercise, are of good juice and easie to be digested. 3. The *Rumpe*, which in such as have short legs, is more fleshy and fat than ordinary, but sometimes it makes the stomach sick by its over fatness. 4. The *Brain*, which in birds than in four footed beasts is dryer and harder; in such as feed on mountains, it is more delicate, than in such as lie in the fields and marshes. The sweetest is that of Cocks, Partriches, and Pheasants. That of Sparrows and Pigeons provokes fleshly lust. 5. The *Neck*, which is thought to hurt the Eye-sight, by reason of blood therein in coagulated. 6. The *Tongue*, which the more musculous it is, the better it is. *Bruyerinus* writes that the tongue of Geese provokes lust. 7. The *Heart*, which is of a fiberous and hard substance, is hardly digested, and hardly passes. Often eaten it breeds melancholly blood. 8. The *Lungs*, which because of their thin substance are easily digested and nourish little. 9. The *Stomach*, which is for the most part fleshy and hard, that of a

Gooſe is the ſweeteſt. That of fed Henns is rather fleſhy than hard: We cal it the Gizzard. 10. The Gutts, which in ſome kind of birds is couuted a dainty. The Gutts of a larke, which are hard and bitter, are by ſome ſwallowed like pills, to looſen the belly, but in vain. 11. The *Liver*, which by reaſon of its hot and moiſt temper, is of kin to our natural Heat. That of a Gooſe is moſt ſhort and tender, and moſt highly prized. Anciently they moiſtened their Gooſe-meat with milk, to make it nouriſh the more. 12. The *Spleen*, becauſe in moſt birds it is very little, is of no account. 13. The Stones, are beſt in cocks if they are nouriſhed with wheyiſh nouriſhment. They are ſought for by delicate and wanton people as incentives to Luſt. 13. The *Feet*, which becauſe they have little fleſh upon them, nouriſh little, and becauſe they are nervous and tendinous they are hard to digeſt. 14. The *Skin*, which is ſweet in ſuch as are fed up and fatted, but of ſmall nouriſhment, and hard to digeſt; that is the ſweeteſt which covers the Loins of Hens. The rugged and fat skin of the Neck, is better boiled, than roaſted. 14. The *Marrow*, which if it be of the back, it is of the ſame Virtue with the Braines, ſave that is a little harder; if that of the bones, it is more fat and pleaſant; but eaten too plentifully it cauſes ſtomach ſickneſs. 15. *Fat*, which being moderately eaten, with ſalt, gives little and bad, yet delightful nouriſhment. It takes away the Appetite, if wine be drunk down after it, becauſe the ſtomach is ſmoothed, the wrinkles are taken away, and the ſenſe of pain by reaſon of the ſucking of the ſtomach is taken away.

III. The *Egs of Birds* conſiſt of the yolk and the white. The former by propriety of ſubſtance is eaſily inflamed and turned to fumes. The *Latter* is cold and glewiſh, breeds bad blood, and is hardly digeſted. They vary in reſpect of Subſtance figure and concoction. They are, 1. Thoſe of *Henns, Partriges, Pheaſants*, ſuch as are young and fat, which excel al others. 2. *Ducks, Geeſe, and Peacocks* Egs, which are counted worſe. 3. Such as are *Smal*, long and white; which are thought to excel others in goodneſs of juice. 4. Such as are *Pale*, as thoſe of Ducks and Geeſe, which partake more of a watry ſubſtance. 5. Trembling *Soft*, which are ſo far thickned by boyling, as that they ſeem to tremble in the ſhell in the hand of the holder, do give much nouriſhment and excellent juice to the body; are eaſily digeſted and diſtributed, and breed blood which is moſt agreeable to the nature of the Heart. 6. *Supping* Eggs, which nouriſh leſs than the quivering or trembling, but they paſs more eaſily and mitigate the roughneſs of the Jawes. 7 *Perfectly boyled* being thickned, which are hardly digeſted, paſs ſlowly down, and afford a more thick nouriſhment. 9. *Roaſted*, are of thicker ſubſtance than boyled, becauſe the Heat of the fire conſumes their moiſture; and if they are quite covered with aſhes, becauſe the fumes are therby kept in, they are the more unwholſom; if they are laid open upon the embers becauſe they breath out their fumes, they are better. 10. *Boyled* they are better than roaſted, becauſe the moiſture of the water, hinders them from being dried by the fire. 11. *Fried*, which while they are digeſted in the ſtomach, do evaporate into nidorous fumes, and corrupt other meats, and breed thick juice. 12. *Poached Eggs*, which *Galen* teaches how to dreſs, are better than boyled or roaſted, if they are done neither too ſoft nor too hard.

III. The *third kind of Meats* are *four-footed beaſts*. Which afford for mans food. 1. *Their Muſculous fleſh*. 2. *Their Head*. 3. *Their Breaſt*. 4. *Their Belly and panch*. 5. *Their Leggs and feet*. *And* 6. *Such things as are taken from, but are not parts of them*.

I. The *Muſculous fleſh*, is frequently uſed for meat, and is hotter with quickning heat than that of fowls, and therefore they grow thrice as big. 1. It is *Oxe-fleſh*, which if of young beaſts, not broken with Labor, 'tis ſo much the better, but ſeldom uſed: if of old beaſts, it is thick, hard of digeſtion, and paſſes not eaſily through the veins, yet is it free from roaping and clammyneſs. It breeds a looſe nouriſhment, hard to digeſt, and produces thick blood. *Hippocrates* has written that it cauſes *cholera ſicca*. 2. *Cow-beefe*, which is of a thick & melancholy juyce. 3. *Calves-fleſh*, or *Veale*, which is temperate, of good juice, eaſie to digeſt. Yet it affords ſomwhat a thicker juice than Kids fleſh, Lambs or Weathers fleſh. 4. *Swines-fleſh*, which differs according to the Age, that of Sucking pigs is moiſt, of no good juice, and which eaſily putrifies, and therefore wine muſt be drunk upon it. That of young ſhotterels is better, and gives good nouriſhment. That of young Hogs, eſpecially thoſe of May, is beſt of al, nouriſhes moſt powerfully, and affords firme aliment, to Men flouriſhing in years, very convenient, and for ſuch as are exercited with hard labors. That of Old decrepit Swine, is hard, taſtleſs, cauſes melancholy diſeaſes, muſt be moiſtened with wine drunk after,

after. The flesh of the *Wild boare or Swine* is better than that of the tame, both because it is not so excrementitious, nor breeds clammy juice. Out of no other Beast so much fuel is afforded to luxurie, for no less than 50. several tasts are thereout produced, whereas others have each one single taste. 5. *Sheeps*, which is of too unsavory a taste, and fit for Country people; it smells strong, if it be boyled after the solstice; worse, if it be roast. 6. *Lambs flesh*, which before a yeare compleat is moist, slimie, after a year, it is ful of good juice, of a midling consistency, and is easily digested in such persons as take paines, and is soon discussed. 7. *Weathers Flesh*, which is easily digested, and breeds good blood, if it be of such as are young. 8. *Roes Flesh*, which is of good nourishment, and excells the flesh of other wild beasts, in easy digesture, and little excrement, yet is it somewhat of a dry nature. 9. *Kids Flesh*, which being temperate is easily digested, and breeds good humors, but more clammy than those arising from veal. 'Tis flashy and void of taste unless it be roasted. 10. *Deeres Flesh*, which is drie and hard to digest, breeds melancholly blood, if it be of an old Deere, and is apt to obstruct the bowells. 11. *Hearts Flesh*, which affords melancholick juice: but if it be wel digested, it is not of ill juice: and is thought to such as eat it to have a fresh color.

II. The *Heads of four-footed beasts* which serve for food are the *Oxe-head, Calves-head, Hogs-head, Wild Boares-head, Kids-head, Hares-head &c.* Of which, thus much may be said in general, that they are hard of digestion, of a thick and clammy juice, and very nourishing. Their principal and most esteemed parts are. 1. The *Tongue*, which consists of a flesh by it self, loose, spungy, moist and clammy: and therefore it affords a nourishment not solid, thick, or long-lasting; yet in some creatures tis exceeding sweet, soft, of good juice, easy to digest, and affording no bad nourishment. That end which the beasts are wont to thrust out of their mother is harder than the rest. 2. The *Eyes*, which are of no account, saving those of a Calves-head, which are compassed with much fat and soft flesh, and are involved in thin membranes. 3. The *Eares*, which because gristley, nourish little, unless they be eaten with the bordering parts. 4. The *Cheeks*, which, if they are of young beasts fat and fleshy, they are not void of good juice. Those of Calves are most tender. 5. The *Braine*, which is flegmatick, of thick juice, passes slowly, and is hard to digest. It makes the stomach thick, and provokes vomiting. *Vatignana* saies it is good against poyson, perhaps because of its clammyness wherewith the sides of the stomach are daubed. 6. *The Palate*, which is commended in an Oxe. It is covered over with a certain membranous flesh, and is a frequent Ingredient into minst pies, Haggests, and Puddings. 7. The *Snowt*, which *Galen* counts inferior to the feet in Hogs, and better than the Eares.

III. In the *Breast* the *Heart and Lungs* are seated. 1. The *Heart* is hard to digest, as I said before. The *Salernitans* are of Opinion, that an Hogs Heart encreases pensiveness, namely in such as are already troubled with Melancholly. 2. The *Lunges* are of a cold and moist temperament, of a flegmatick juice, easily digested and distributed, by reason of their rarity or thinness of substance, and their Lightness: some say they puffe up the belly.

IV. The *parts of the Belly* are, the *Liver, Spleen, Kidneys, Stones, Matrix, Stomach, Gutts, Mesentery, the Flanks, Duggs or Udders.* 1. The *Liver* of al beasts, is of thick juice, hard to digest, and which passes slowly. That of a Sow is best, especially if she have been fed with figgs. That of Lambs and kids, does more easily pass, and is not so thick juiced. The Roes Liver is said to bring epileptical convulsions as well as the goats. The wild swines liver covered with the Cal, is commended. 2. The *Spleen* because it draws thick, dreggy and melancholick blood, affords suitable nourishment. Those of young swine, because they are not infected with so bad blood, are not of so ill juice. 3. The *Kidnies* are of bad juice, ill tast, hard to digest: those of kids and Calves are commended, because they are neither hard, nor rank. 4. The *Testicles*, because they have a rank tast, especially in such creatures as have engendered, are hard and ill to digest. But Hogs-stones are counted the best, and lambs stones are not ill thought of. 5. The *Matrix* was by the ancients esteemed a very dainty dish, and was reckoned of two sorts, viz. that of a sow or other beast with young, and that of Virgin female. 6. Because it ingenders a cold and crude juice, therefore tis hardly digested. 6. The *Stomach*, what nourishment it gives may easily be conjectured by its constitution. 7. The *Smal gutts* which the greeks termed chordas, the Latines *Lactes*, were anciently a dainty dish, witness

the

the Poet *Epicharmus* in *Megaride*: the thick guts which they called Phuscat, were no less esteemed of. 8. The *Mesentery*, especially that of a fat sucking calf, is a most dainty dish with a little Vinegar. 9. Touching the flanks or *groins* I have nothing to say. 10. The *Udder* was counted for a dainty dish, as may be collected from the Pseudolus of Plautus.

V. The *Extremities* or feet are by *Aristotle* accounted to be of a clammy nourishment. *Mnesitheus* the Athenian, writes, that they and the Head have little nourishing and pure Juyce in them. Some have termed them the Sacrifice of *Venus*. Hereunto I refer the *Sweet bread* and *Brawne*, the sweet bread is a Kernelly, Soft, Spongy and white substance. *Plautus* commends it in his Curculio. That of a Calfe is the sweetest. Brawn is swines flesh hardned, and was highly esteemed by the ancients.

VI. Food taken from Animals being no part of them, is *Milk*, which also affords the parts whereof it consists, *Whey*, *Butter*, and *Cheese*. I. *Milk* is manyfold. 1. *Raw*, which must be taken new milked, least it cause Wind. That of Cows or other Creatures which have newly brought forth their young, is not approved. 'Tis corrected with a little Salt or Sugar. 2. *Boyled*, which is indeed less windy, but because the whey is consumed by boyling, it becomes thicker, and apt to stop the Veins. 3. *Cheesie*, which has much Cheesie substance in it, Nourishes much, but is not so wholsome. 4. *Buttery*, which is more clammy, is hardly distributed, and causes wind. 5. *Wheyish*, which nourishes least of al, and quickly passes through the Belly. 6. *Of leane Cattle*, which nourishes little. 7. *Of Fat beasts*, which is said to be apt to breed convulsion fits. 8. Of *black beasts*, which is better than that of such as are white. 9. *Milk after the bringing forth of young*, which is most liquid and thin, and grows thick in time. 10. *The best*, is luke warm, of equal substance, put upon the Naile, it does not soon run off, light rather than heavy, not clammy but sweet, without smel, white, and in some sort shining, finally which proceeds from an healthy Creature, being made in wel constituted Udders. 11. *Womens milke*, which is very near the best of al other. 12. *Cowes milke*, which is thicker than that of Women, fatter, and more nourishing. It easily obstructs, and is in the Stomach hardly digested. 13. *Sheeps milk*, which is inferior to that of Cowes, and obstructs more. 14. *Goats milke*, which is a little hotter than the foresaid, of thinner substance, and less nourishment, and more apt to loose the Belly. 15. *Mares milke*, which by the thinness and heat of the wheyish substance, wherewith it abounds, is exceeding detersive and clensing. 16. *Asses milke*, which is colder, thinner and more wheyish than the rest, less nourishing and less obstructing, it exceedingly clenses and loosens the Belly, without any acrimony or biting. II. *Whey*, in regard of its watry and Flegmatick substance, cooles and moistens; in respect of its sharp, Salt and Flegmatick parts, it clenses. III. *Butter*, helps the breast and Lungs, brings up flegm, and is good for cold and dry Coughs: taken in great Quantity, it loosens the Belly, and is endued with a strong faculty to digest, discuss, concoct, and lightly bring up. When it is old, it attains an Acrimonious Quality. IV. *There are some Differences of Cheese*. 1. Some is new and soft which is preferred before that which is hard & old: because it nourishes more, & passes sooner through the belly. 2. Some is of *a thin and loose substance*, which is more wholsome than that which is compact. 3. Another sort is *Clammy and dry* which is accounted bad. 4. *Sheeps Cheese*, which is concocted more easily than other sorts, and affords better nourishment. 5. *Cowes milk cheese*, which is next in goodness to sheeps Cheese. 6. *Goats milk cheese*, which is worse than either of the former, as being doubtless more hot and thin. 7. The *best cheese*, is void of Eyes and holes, not over salted, nor foul with hairs, nor wheyish, nor old, nor hard, nor Ranke. See *Gesner of milke, and things made of milke*; *and* Nardius *in his Physical Analysis of milke*, IV. *The fourth kind of meates*, but worse than those of four footed beasts, are *Fishes*, whose qualities wil be best explained by their Differences and parts, Viz. Their flesh and other Members.

I. The *Differences* are taken. 1. From *the Place*, in respect whereof, some breed and live in lakes and ponds, others in Rivers; some are Sea-fish, both such as haunt the stony places near the shore, and such as live in the Maine Sea; others live partly on land, partly in the Water; others are digd out of the Earth; touching al which observe these following Rules, 1. *Pond-fish*, because they are muddy and little exercised, are ful of Excrements. 2. *Lake-fish*, that live in great lakes, which are watered with Fountaines and Rivers, are better than the former. 3. *River-fish*, which swim

swim in troubled Waters, that receive the filth of great Cities, are offensive to the stomach, are of thick substance, and difficultly voided forth; such as live alwaies in cleare Waters, are better than pond or lake fish. *Sea-fish* that live in an Northerne Sea open to the winds, by reason of their exercise, and the purity of the winds, have excellent flesh. 5. *Maine Sea* fish which live in the bottome of the Ocean, are of hard flesh, are hardly digested, but they afford plenty of nourishment to the Body. 6. *Shore fish* because they live upon the scum and purgings of the Sea, may be disliked: and because they haunt in such places as are inlightened with the Sun beams, and by continual exercise such Excrements as are collected from their food, are dissipated, they are to be preferred before such as live in the Maine Sea. 7. *Stoney place hanting* fish, which keep alwaies one place and food, are easie to digest, of good juyce, absterfive, light and little nourishing: such as roame up and down, by reason of their continual motion and the cuffs they receive from the billows, are of an hard flesh. 8. Fish *Dug out of* the Earth have hard and unpleasant flesh, and *Seneca* records they were found so bad and destructive, that al died that did eat of them. 9. Such as *live on Land and Water*, by reason of the variety of their diet and motion, are hardly allowed as good to preserve strength. 10. Fish of the same kind and sort, differ in goodness and badness, according to the healthyness & unhealthyness of the place wherin they live. Some are better in the Ocean than in the Mediterranean seas and contrarywise. II. From their *Substance*, in respect of which, fishes are. 1. Of an *Hard flesh*, which are disallowed, especially if they be clammy withal. 2. *Soft of Flesh*, which are best of al, if their Flesh be also tender and short. 3. Of a *middle Nature*, which have short but not soft flesh: such as are mullets. III. *In regard of Age*, in which respect note. 1. That little fish, if hard of flesh, are disliked, as also the softer, because they have a slimy substance. 2. That old Fish, do by their Age lose much of their flesh. 3. That those of middle Age are most approved, because they are neither slimy nor dry, IV. *In regard of their food.* 1. Some *Eat flesh* and are of an hard and dry substance. 2. Others *live upon slime and mud*, which are of Clammy substance. 3. Such *as feed upon Roots and Herbs* have soft and short flesh, &c. But of these see my Books of Fishes.

II. Among the *Parts of Fishes* used in Diet, in the Cheife is their *Flesh*. In respect of it therefore. 1. *The Stock fish* though being new, tis short, tender, of good Juyce, and easily digested; yet being dried, it affords a thick nourishment, hard to digest, and which cannot be overcome, save by a strong Stomach. 2. The *Sole, Flounder*, and *Place*, being fresh and new, have white and good flesh, and such as affords plenty of good nourishment, and which is not easily corrupted. When they are dried, they are harder. 3. The flesh of a *Salmon* is tender, most grateful to the Palate, easily digested, affords good Juyce, Viz. While it is young. 4. *Trouts* are the best of al fish that breed in the fresh waters, easily digested, of much good and thin Juyce: the biggest are not the best in regard of their fatness and clammyness. Those are most esteemed of, which are sprinckled with red spots and have red flesh. 5. *Gudgeons*, afford wholsome nourishment, are of good tast, easie to digest, and abide not long in the stomach. 6. *Millers Thumbes* are like to Gudgeons. 7. A smal *Pike* or *Pickerel* has a very short flesh, not hard to digest, and easily distributed; some count it to have an hard flesh. The River Pike, is better than that of the Pond. 8. The *Sea-Perch*, is according to *Diphilus*, tender, not ranke, easily digested; the River Pearch has flesh that is not indeed, so short, yet is it not hard to digest, nor is it of bad Juyce; others say it affords a weake nourishment which is easily dissipated. 9. The *Carpe* has moist flesh, ful of a watry rather than a Clammy Humor, and has much Excrementitious Juyce. That is most commended, which breeds in swift streams and pure waters. It must not be eaten with variety of other meats, but by it self. 10. The *Barble* has exceeding white flesh, easily digested and distributed, and has no ill nourishment or Juyce. 11. The *Lamprey* is clammy: but if it be wel sauced and dressed, it affords a pleasing and wel tasted Nutriment. Some would have it to be strangled in wine. 12. An *Eele* has soft and sweet flesh, but clammy, ful of Fat and moisture: some say there is somthing in an Eele, which not taken out is destructive to the bowels of the Eater. Howbeit the Ancients so highly esteemed this fish, as to account it the Helena or prime dish at their feasts. 13. The *Tench* is by *Ausonius* cal'd the poor mans comfort. It is thought to be of so bad Juyce that the feeding thereon

should

should cause Feavers. 14. The *Herring* has a white and short flesh, of good taste, not hard to digest, of good Juyce. Being salted or hardned in the Smoake, it degenerates from it self. 15. The *Sturgeon* has hard flesh, Fat and glewish. It affords no bad Juyce, only tis hard to digest: the younger are most pleasant, and afford much nourishment.

III. The *other Members of Fishes* are. 1. The *Head* which is mans meat, in some fish. The Mullet was anciently bought, only for his Head and Liver. At this day the Head of a Salmon, of an Umber or Hallibut, and of a Carp, are accounted dainties. 2. The *Tongue* which in a dolphin is Fat and tender; in a carpe if it be roasted, tis very fat, & provokes lust. 3. The *Eyes* which in a Salmon are tender and Fat. 4. The *Beards*, which *Heliogabalus* had served up by whole platters ful, instead of smalladge and Water-Cresses and Fenu-Greek. 5. The *Throates* or parts between the breast and Neck, being salted, are pleasing to the Palate, and according to *Xenocrates* are hardly corrupted. 6. The *Liver* which in stock-fishes or Cods, is counted better than in other Fishes. In the Silurus, tis so sweet as to overcome the Stomach. That of the *Wolfe fish* roasted and sauced with Juyce of Orenges, is not inferior to a Gooses Liver. Upon the Livers of River Lampreyes, the revenues of *Princedomes* have been anciently laid out. 7. The *Sides* of the sturgeon and Lamprey are commended. 8. The *Bowels* without which the Gilthead has no taste, and in the Dolphin their smel is delightful, as also their taste resembling Violets. 9. The *belly*, which in the fish they cal Huso, tastes like Porke. A dish has been invented of the Navils of the thin Fishes, cut out of their bellies, and barrelled up with Salt, Vinegar, and Fenne. 10. The *Roes* which in the Pike, Huson, Scarlet fish and others, are commended. 11. The *belly* which is fattest in the Tuny-fishes as *Hicesius* informes us. 12. The *Guts*, which are commended in the Salmon, Pike, Cod, and Conger. 13. The *Flankes and Groins* which *Horace* commends in a Turbot. 14. The *Loins* which *Antiphanes* relates to have been among the dainty dishes of Old. 15. The *Taile*, which is desired in the Pike or Thym. The Proverbe is, The Head of a Carpe, the middle of a Scordil, the Taile of a Pike, are the Gluttons delight. 16. The *Skin*, which in a Tench, is by French Women, preferred before any flesh. 17. The *Eggs* or hard roes of Perches roasted on a Gridiron; of Carpes boyled and fried; of the Wolfe-fish, Salmon, Huson, and Marde, Pickled, were a dish of esteeme among the Ancients. Those of the Barble, Gripe the Belly intollerably, those of the Pike make it swel. And so much for Fishes.

IV. Among *bloodless Creatures*, I shal only reckon *Oisters*, *Snailes* and *Crabs*. I *Oisters* by the Salt Juyce they have in them, do provoke the Belly to stoole, they stir up appetite, and incite Lust, nourish little, and make some trouble in the stomach. II. *Snails* are of an hard flesh and difficult to digest: but if digested they nourish plentifully, if often Eaten. They breed thick and black blood. That which is said to be good in Consumptions is in the broth of their Flesh, especially their hinder parts. In which there is a clammy substance like hardned cheese, easily melted, and soon chewed, tender, soon digested and very nourishing. Those are best, which are least white, and which are found in Vineyards and Orchards. III. *Crabs* which have no Tailes; and Lobsters that have Tailes, do not much differ. They are hard to digest; being digested; they nourish much, but breed thick Juyce. Touching *Creeping Creatures* and other things, used for food in other Nations, I shal not speak.

Point, 3. *Of Sauces, Bread, and the time of Eating.*

The third thing to be explained touching Diet, is *Sawces*, whose Differences, and matters or kinds, I shal now reckon up. I. As to the *Differences of Sawces*, they are, either, 1. *Simple*, which are made of the mixture of one only thing with our Meat; or *Compound*, which consist of two or more. The former are heating, cooling Temperate, Sharpe, Aromatick, Bitter, Salt, Harsh, Acid, Sweet, Fat. The latter are wel nigh more in Number, viz. *Dipping-Sawces*, *Licking-sawces*, *Sugard-sawces*, *Sage-sawces*, *Garlick-Sawces*, *Onion-sawces*, *Tart Sawces*, *Vinegars*, *Sallads*, not to speak of your *black broaths*, *Sawcages*, *Pap-Sawces*, *Bononia Sawcages*, *Westphalia Gammons*, of which see *Apicius* and *Athenæus*.

II. The *Matter of condiments, are things dug out of the ground*, *Plants themselves*, their *Juyces and Honey*. *Of things dug up is Salt*, which attenuates clammy meats, gives taste

taſt to thoſe that are taſtleſs, dries ſuch as are moiſt, takes away the ſtrong ſmel of ſuch as ſtinke. The beſt is white, tranſparent like criſtal, thick, void of ſmel, which has an even acrimony joyned with a certain ſweetneſs. If we beleeve the *Mauritanian Phyſitians*, it dims the eyes, waſts the ſeed, and raiſes the ſcab. II. *From plants*, there is, 1. *Peper*, eſpecially the black. Which excellently helpes concoction, and is exceeding good for flegmatick natures. That is beſt which is moſt heavy, ful, black, without wrinkles. 2. *Ginger*, whoſe Heat is thought to laſt longer than that of peper, corects the Crudities of the ſtomach, and provokes Luſt. 3. *Cloves* with which neats tongues, Cowes-udders, &c. are pricked and ſtuck. They heat with a kind of Aſtriction, and helpe the ſtinking of the Breath. 5. *Cardamoms*, which are ſharpe and bitter in taſt. 6. *Nutmegs*, which are uſed to the ſame intents as the former. 7. *Saffron*, which helps the concoction of meat, breeds a freſh colour, opens the ſtoppage of the liver, and has a narcotick or ſtupefactive Quallity in it. 8. *Elder*, whoſe firſt buds pickled in vinegar are kept as a ſaller, and move the bely to ſtool. 9. *Capars*, which being pickled with ſalt, oyl or oximel, provoke appetite, void the flegme which is contained in the Belly, and eaſe the obſtructions of the ſpleen. Touching *Water-Creaſes*, *Onions*, *Garlick*, &c. ſee what has been ſaid before. III. From the *juices of plants* there are, 1. *Sugar*, which lenifies ſharpe things, blunts the fervor of things biting, makes ſalt things more delicious, overcomes harſhneſs, gives taſt to things inſiped, but withal produces choler in ſuch as are of an hot Nature; and makes black, Furrs, and looſens the teeth. 2. *Oyl*, which if preſſed from ful ripe olives, it affords nouriſhment ſutable to our Natures: and is fit to correct the bad quallities of other meats, and of herbs. Alſo it molifies and looſens the Belly, it takes away al Aſperity, it helps ſuch as are bruiſed, and mitigates pain. 3. *Juice of unripe grapes*, *Citterns*, *Lemmons*, and of *Crabs*, which the French and Itallians much uſe, doe coole, bind, and helpe the extravagant longings of women. Hereunto belongs *Vinegar*, which is extream cold and piercing. The eagerneſs thereof is blunted, with a peice of toaſted bread, wine, raiſons, elder flowers, roſes, ſugar, and ſuch like things. Tis hurtful for mellancholly perſons, and women that are ſubject to mother fits. IV. *Honey* is of an hot nature, ſaving that which is white, and ſeems convenint for healthy people. It eaſily turns to choller, and therefore it is neither fit for hot natures, nor hot parts, otherwiſe it has a power to cleanſe and reſiſt putrefaction. Mead is made hereof.

IV. In the *Fourth* place we reckoned BREAD, of which in reſpect of the Matter and waies of making, there are ſundry differences.

I. In *Reſpect* of *Matter*. I. Such as *is neceſſary*. 1. It is made of fine flower, and which is moſt nouriſhing to the Body. 2. That which is made of bolted meal, and fineſt flower being taken away, and is next in goodneſs to the former. 3. Houſhould bread which is made of the finer ſort of bran, and nouriſhers leſs than the former, but deſcends better through the belly becauſe of the branninеſs. 4. Of *Courſer bran* which nouriſhes leaſt of al, but goes ſooneſt through the belly. 5. Bread of altogether, which nouriſhes very wel, and ſoone paſſes through the belly. 6. *Barley bread*, which if it be made of the moſt excellent barly, is the leſs inferior to wheaten bread; if of looſe and light barly, it is like the wheaten bran bread. 7. *Rye bread*, which if it be black and heavy it burthens the eater, is of ſad and thick juice, and breeds ſtones in the kidneys. II. In reſpect of the matter prepared and quallified, it is. 1. *Leavened bread*, which is lighter and ſooner deſtributed, than the unleavened. 2. *Unleavened bread*, which is of a contrary Nature. 3. *Soure leavened*, which is alſo hard to digeſt, and lies heavy upon the ſtomach. 4. *Salted bread*, which is lighter than the unſalted. 5. *Unſalted bread*, which is apt to breed obſtructions. I ſhal not ſpeak of *Saffron-bread*, *Eye-bread*, *Butterd-bread*, *Cheeſe-bread*, *Sugard-bread*. Hereto belong *the parts of bread*. 1. The *Crum*, of wch that which has been here ſaid of bread is to be underſtood, 2. The *upper cruſt*, which drinks up moiſture in the body, and ſharpens the Heat thereof; but if it be ſcorched and burnt, it breeds aduſt humors and black choler. 3. The *Lower Cruſt*, which is of like nature with the former.

II. In *Reſpect of the preparation*, bread is. 1. *Savory*, in which the leaven and ſalt are wel mingled. 2. *Unſavory* or *taſtleſs* which is contrary wiſe ordered. 3. *Wel Kneaded*, which is neither too litl nor too much, but moderately wrought. 4. *Ill kneaded*, which obſtructs, puts up, burthens the ſtomach. 5. *Baked in an Oven*, which Becauſe its throughly bak't is the beſt of al others. 6. That

which is baked *on tiles*, or in a *portable oven*; which because it is not so wel baked in the bottom, is worse than the former. 7. That which is *bak't on a gridiron, or on the hearth*, is bad, because the outer parts are scorched and the inner parts are dough-bak'd. 8. *Bak't under the ashes* or embers, from which it receives a bad quallity. 9. *Biscoct or Bisket*, which is drying, and if made of fine flower, it affords very little excrement. 10. *New Bread*, which if *hot*, causes thirst, and breeds winds and suffocations; if *cold*, tis wholsom to feel on; if it be *two* or *three days old*, tis hard of digestion, because of its dryness. 11. *Old* bread which is hard and moldy, breeds a melancholly humor; and binds the belly. 12. A *Great Loafe*, because the fire has not sufficiently digested the moisture thereof, lies heavy upon the stomach, and raises wind. 13. *A Little Loafe*, because it is more than ordinarily crusty round about, produces a-dust blood as the material cause; and makes the Body dry. 14. *A Loafe* of a *middling size*, which is most commended. 15. *Light and spungy*, which nourishes lightly, and makes no obstructions in the bowels. 16. *solid and heavy*, which is worse than the former. 17. The *best bread* therefore is that which is made of fine white wheat meal, the wheat being ripe, not very new, grown in a fat soil, not infected with moaths, dust, cockel, darnel, or frost, not wet with rain, or musty with keeping; being wel kneaded, leavened and salted.

V. In the *first place* we are to consider of the TIME OF EATING, which varies according to the several Customs of natures. The Hebrewes seem to have eaten twice a day. Among the Greekes even so long as since *Homers* daies, their times of eating were distinguished into dinner and supper. The latter Grecians did eat oftener. The Romans had their Breakfast, dinner, after noones bever, their Supper, and Rere-supper. Our Age followes the Custom of the Romans, yet thousands there are, that content themselves, with a dinner and supper only. And so much may suffice to have spoken of meats. They that would know more, besides *Galen* of the faculties of meats, let them consult *Morellus* upon Schola Salerni, *Bruyerinus* of Meates, *Julius Alexandrinus* of wholesome diet, and *Ulisses Aldrovandus* de Animalibus.

Article. 3. *Of Drink.*

Drink is a thing non-natural, restoring the moist substance of Mans Body, and quenching his thirst.

Touching which two things are observable. *The Necessity thereof to preserve Health, and its kinds.*

I. That *Drink is necessary for Health*, is hereby manifest, in that it restores the moist substance of our Bodies, which daily wasts away, it quenches natural thirst, it carries the fat and thick moisture through the narrow passages, it causes the mixture, digestion, and liquefaction of meats in the stomach, and prohibits the inflamation of that same fat juice which is ordained to nourish the Body.

II. The kinds of drink are, 1. *Water*, 2. *Wine*. 3. *Beer and Ale*. 4. *Mead*. 5. *Liquors* made of Apples, Peares and such like fruits.

I. Touching *water*, two things are considerable, *viz*, its *differences*, and *Correction*. I. In respect of the Differences, water is either, 1. *Raine water*, which if stormy and cloudy is condemned: if it come down with thunder, it is exceeding light and thin, because the Sun drinks up and draws out the most subtil parts; yet is it impure and subject to putrefaction, because divers vapors drawen up by the heat, are mixed with the Raine. 2. *Snow and Ice-water*, which because the most subtile and light parts are dissipated, is thick, and hurts the stomach, and breeds greivous diseases, of the joints, nerves and bowells. 3. *Water gathered in Cisterns*, which has much setlings, is slow in passage, oftentimes has a strong tast and smel of chalk, and sometimes breeds little animals. *Pit-water*, which because it mounts not above the Earth, it is thick, and sticks long in the bowells. *Observe* that sweet water springs out of marley grounds, cold water out of stoney, and thin muddy water out of gravelly places. The best and most hopeful comes from ground that has red stones, wel tasted water comes from sandy ground, cold water proceeds from the bottom of mountaines and from stony and flinty places. That water is best which is hot in the winter, cold in the Summer. 4. *Fountain water*, which if it come out of a Rock, and runs towards the North, and is not illustrated by the Sun, it is unhealthful: if it issue directly against the Summer-Sun-rise, tis wholsom: if it run in a flat and plain ground, because the Sun exhales the most subtil parts, and leaves the earthy behind

behind, tis not so wholsom: if it run through *leaden pipes*, 'tis hurtful: if through Sand and pibbles, and draws no dirt with it, 'tis commendable. 5. *River water*, which for the most part is mixed, as rising from many springs meeting together, and from snow dissolved in the mountains, and rain water to boot. Its crudity is corrected by the beames of the Sun, which play upon it while it runs such a long tract of ground. It varies according to the variety of Rivers which flow into it, and the Sundery lands it runs through. 6. *Lake and Pool water*, which is the worst of al others, for it is thick and crude, and many times pestilential. It offends the Stomach, obstructs the bowells, corrupts the Humors, and many times is the Cause of putrid Feavers. 7. The *best Water*, is that which is transparent, void of all strange tast or smel, is soon cooled, soon heated, is light, and in which flesh and fruits are sooneſt boyled. II. The *Correction of waters* is performed by boyling, by which not only the Crudity and Coldness is amended, but also the earthy and bad parts are separated, which when the water cooles, settle to the bottom. See of this subject, *Pamphilus Herilacus*, touching the qualities of water and wine.

II. *There are certain differences of wines*, I. In respect to the place where they grow, there is 1. *Vinum Falernum*, which is of an excellent juice. 2. *Wine of Crete* or Malmsey, which eases a cold stomach and cures the Colick. 3. *French wines*. 4. *Rhenish wines*, which are thin, most fit to strengthen the Heart, and restore the forces of the Body. 5. *Hungarian wine*. 6. *Spanish wine &c.* II. *In respect of its substance*, wine is, 1. *Thin*, which easily penetrates, suddenly, restores strength, opens the passages, provokes sweat and urine, but nourishes little. 2. *Thick wine*, such as is the black, red, sweet and harsh, which nourishes most; but it sticks long in the body, heates the same, and dries it, and sometimes breeds obstructions. II. *In respect of color*, wine is, 1. *White*, which heates less then the yellow and Gold-coloured, if besides the color, it be withal thin of Substance. 2. The *Gold-colored* which is next to white, and if it be thin withal, is excellent. 3. *Red*, which moderately heates, breeds good blood, and troubles not the head: if it be thick withal it hastens obstructions of the spleen and liver. 4. *Pallet wine*, is much of the same nature. 5. *Black wine*, which is of a thicker substance for the most part sweet, very nourishing, and breeds thick blood. While it sticks long in the bowells, it obstructs them, and fills the head. III. *In respect of Tast*, 1. There is *Sweet wine*, which nourishes wel, is pleasing to the palate, bowels, lungs and joints, nor disturbs the Head, but because it is thick, it breeds obstructions, and is easily turned into cholor. 2. *Harsh wine*, which has a weaker heat, staies longer in the belly, and pierces to the passages of urine, is good for fluxions; but because it hinders spittle it is not good for diseases of the Chest. 3. The *midling sort*, which is best of al. IV. In *respect of smel* it is: 1. *Fragrant*, which restores strength by its very smel, encreases the spirit, strengthens al the faculties. 'Tis good for old people, save that it fills the head, and weakens the nerves. 2. That which *has no smel*, which is neither so greedily drawn by the stomach, or affords matter so fit to engender spirits. 3. That *which has a strange smel*, which is hurtful. V. In respect of Age, it is, 1. Must, which by its windyness breeds the cholick, and hinders the voidancie of Urine, 2. *New wine*, which yet retaines the sweetness of must, is excrementitious, not easily distributed into the body, and breeds fluctuations therein. 3. *Old wine*, which works upon the nerves and troubles the brain. 4. *Middle-ag'd*, which is best for al Intents and purposes. In which nevertheless there is great variety. Some beare their Age, others soon loose their strength. III. *Beer* is in use among the Northern Nations where little or no wine growes. 'Tis made of wheat, barly, rie, oates, either simple or mixed together; and is preserved with Hops. It has also sundry differences. I. From the *matter*. 1. Some is made of *wheat* which nourishes, heats and moistens more than that of Barley; but it breeds a more clammy juice, causes obstructions, provokes urine, and moves the belly to stoole. 2. *Barly-malt beer*, which heats less, by reason of the barly; but because it has much hops, it becomes not a little heating, affords more thin juyce, and is more diuretick. 3. *Oaten-drink* which is of the same quality with oats. 4. *Rie-beer*, which nourishes very much; but breeds obstructions and stops the Urine. Hereunto belong the differences of beer, from the waters it is made of, viz. poole, river, pit water &c. which also varie the faculties and strength of beere. II. *From the Age*, it is, 1. *New*, which is unwholsome, especially if it be troubled: for it stops the passages, and is bad for such as have the stone. 2. *Well-purged and ripened*, which is more wholsome.

III. In *respect of the place where 'tis made*, we have, 1. *Poland beer*, which is made for the most part of wheat, nourishes wel, and Heates moderately. 2. *Dantzick beer*, which is like a syrup, nourishes such as are used to it very wel, in others, it causes thirst. 3. *Hambrough beer*, which is commonly made of wheat, is of good taste, makes a man have a fresh colour, expels the urine; if it be taken too largely, it makes a man have a red face. 4. *Lubicks* Beer, which is too strong, makes the Head heavy, and hurts a mans health. 5. *Goslar beer*, which at the first tasting seems sweet, and soon after imprints a winy taste upon the tongue. It is healthful. 6. *Embden beer*, which is subtile, clear, and piercing, at first bitterish, afterwards sharp, it drives forth urine and choler: and therefore 'tis commended in the Jaundice, and in Fevers. 7. *Brunswick beer*, called Mum, differs not much from the former, save that it is thick and more windy. 8. *Rostock beer*, which quenches thirst, expells the Urine, nourishes little, and is good in the summer time. 9. *Servestan beer*, which hangs long in the hypochondria, and sometimes causes sharpness of Urine. 10. *Newburg beer* in Thuringia, which is wel boyled, and nourishes; if it be taken too plentifully, it causes dimness of sight: some have grown blind by too much use thereof. 11. *Erfurt beer*, which conduces very much to health. 12. *Torgave beer*, which breeds good blood, and by its aromatical taste strengthens the principle members. 13. *Wittenberg beer*, which is like the Rheue beer, being ill-boyled. 14. *Rauschenburge beer*, which is commended against the stone. 15. *Paderborn beer*, which breeds thick blood. 16. Beer of *Brabant*, *Gelder*, *and Zutphen*, which breeds the scurvy. 17. *Flanders-beer*, which is very commendable, especially their double beer. 18. *English beer*, which makes the drinkers fat. 19. The *Rhenish beer*, which is for the most part base and hurtful. 20. *Colen beer*, which is better than that of Brabant. I pass over the *differences* taken from the vessels, which also change the faculties. They are kept, sometimes in pitched, sometimes in unpitched vessells. *Mead and Metheglin*, do for the most part Heat more than wine, especially if spices be added thereunto. But it easily turns to choler, because of the Honey.

Chap. 2. *Of non-natural things done by a Man.*

NOn-*natural things which are done, are passions of the Mind, Motion and rest of the* Body, *sleepe and waking, which are of great moment towards the preservation or violation of Health.* Touching *affections* of the Mind, and their Action upon the Body, these things are cheifly to be observed. 1. That *Moderate affections* preserve health, and make no change in the Body. 2. Such as *pass their bounds*, oft times disorder the body, and sometimes bring sudden Death. 3. If you consider the good Affections or passions, 1. *Love* if it exceed, because it vehemently inflames the spirits in the Heart, endeavouring to draw the thing beloved to it self, and therfore sending the spirits forth to meet it, does often times cause palpitation of the Heart, sometimes madness, fainting, &c. 2. *Cheerfulness*, if it be *moderate*, recreates the Heart and vital spirits; if it be sudden, and in too great a quantity, it so dissipates the spirits, which the Heart therein sends into the outward members because of its over great dilatation, that it oftentimes brings death. 3. In *Evil Affections or Passions*. 1. *Sadness* by little and little, dissolves the spirits, cooles and dries the body, spoiles digestion, causes watching, and breeds melancholy diseases. 2. *Fear*, dissolves the strength of the Body, by reason of the sudden recourse of the Heat, Blood, and spirits, into the outward parts, causes a smal pulse with refrigeration of the external parts, and is sometimes the cause of sudden gray haires, even in young Men. 3. *Anger*, in which the *Spirits and* Blood do as it were boile in the Heart, and are violently moved, from the inner to the outward parts: it agitates the spirits and Humors, Heats the whol body, and breeds Fevers. Tremblings of the joints, and Palpitations of the Heart, do often invade angery persons. Also women are thereby brought into danger of Abortion. Anger hardly ever kild any body, because the Spirits are thereinfreely and forcibly moved; if any died upon occasion of anger, of necessity there was some other natural disorder in the body.

II. That Motion is necessary for Health, is hence apparent, in that by encreasing natural Heat, it furthers Nutrition; by moving and agitateing the Spirits, it discusses vapors and excrements;

excrements; it makes the body after a sort hardy, by adding solidity to the parts, by their mutual Attrition. Now according to its *Differences*, it works diversly upon the Body of Man. The *best* is that which exercises al parts of the body alike. The *next to that*, is whereby al parts are moved, but not equally; the *lightest of al*, is that which exercises one only part. I. *Two much Motion*, exhausts the spirits and solid parts, cooles the whole body, dissolves the strength of the Muscles, Nerves, and Ligaments, and hurts the Eye-sight. II. *Swift motion* renders the body thin and compacted. III. *Slow motion*, rarifies and encreases the Flesh. IV. *Vehement motion*, makes the body hard, lively, but leane withal. V. *Continued and equable* Motion, because the members are weakened thereby, as being much, it wearies the more. VI. *Unequal motion*, because it is parted with spaces of rest, wearies less. VII. *Distinguished and ordinate motion*, brings less wearyness, since Interruption brings rest, and the rest is cause of less wearyness. VIII. *In hot places* it burns more, in moist places it moistens, because the bodies being rarified by exercise, are most readily disposed to receive al the qualitie of the Air and Places. IX. *Among motions caused by a mans self*, I. *Leaping without Intermission*, stirs up natural heat, but hurts the Head by concussion and the Breast by compression, while the back is bowed. *Leaping on high*, is good for the Hips, but bad for the breast; *Downwards to leap*, cleanses the Head from superfluities, and strengthens the thighs. With *Springing*, it is good for old Diseases of the Head, and brings matter which tends upwards, downe into the lower parts. 2. *Running*, if it be *Vehement*, is good for Fat and moist bodies, but it is bad for such as are troubled with any kind of Head-ach. If *Running be moderate*, it excellently warms the Body, excites appetite, and though at first it move defluxions, yet it afterwards in tract of time stops them. A long course *fore right* by little and little performed, diffuses the flesh, but renders the bodies thicker. *Backward*, if it be gentle, it is good for the Head, Eyes, stomach, Loins. A *Circular* motion distends the flesh and belly, and very much offends the Head, *uphil*, tis bad for the Breast and thighs. *Downhil* it very much affects the head, it shakes the bowels, troubles weake hips: upon *plain ground*, it does al that has been said. The *body being covered*, by moving sweat, it moystens and heats the flesh, but it makes the bodys il colored, because the pure air does not come at them, to cleanse the same. The body being *naked*, it draws out great plenty of sweat, it brings away the humors in invisible exhalations and does more burne the body. 3. To *excercise ungirt* by hurling a weight, by reason of the vehement straining to throw the same, the vehemency of the motion and bending of the muscles, does make limbes to grow firme, and purges them from excrements, but this excercise must not be used by such as have weake Breasts and Kidneys. 4. *Darting* is useful to get a good habit of Body; and therefore *Æsculapius* and *Apollo* were thought to be the first Masters of darting. 5. *Moderate walking abroad, continued without resting*, makes the body pure, it helps defluxions and suppression of the courses. *Swift* walking, does heat much, and abates the greatness of the flesh. *Slow walking*, is convenient for ancient and weake people: because it softens bodies exhaust with immoderate Labours, and purges them, by opening the Pores. *Too much walking*, takes away the trembling of the body, dispels winde, and very much disorders weak heads. *Much walking* does help such as are troubled with Infirmities of the Head and Chest, and whose lower parts are not nourished. *Little walking*, is fit for such as must walke after meat and who feel an heavines in their bodies. *Long walking right out*, is good for the head, but it does too much drinke up the humidities. *Long and Quick* is good for the Hickup. *A short walke* compounded of motion and rest, by reason of the frequent turning and returning, is labourfome, and weakens the head by frequent turnings. *With labour of the thighs and going upon the heels*, it is good for a moist Chest and a convulsioned wombe. *To goe on tiptoe* is good for such as are bleer eyed, and costive in their belly. To *goe uphil*, does more weary the body, because it is as it were loaded in that motion, it moves sweat and hinders the breath, and it is exceeding bad for weak Knees. To *walk downhil*, draws from the Head to the inferior parts, but it weakens the Thighs. *To walk through even Plains*, affects the body by the Universality of the Motion, such motion is sooner finished by reason of its affinity with Nature. To *walk upon uneven grounds*, is good for such as are soon weary with walking. walking over *rough grounds*, fils the Head. *Walking over deep Sands*, makes most of al to stablish and strengthen al the parts of the body. To *walk in a close place*, subjects a man to intemperate, vitious and thick aire, which fils

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the whol Body. To *walk in the open Aire*, if by the *Sea-side*, it dries, and attenuates thick Humors; if by *Lakes* and *Rivers*, it moistens, but is bad for Epileptick persons; if *in the maine Land*, it is not so good as by the Sea; if in the dew, it moistens, not without dammage; if in places not subject to the wind, Causes Humors to exhale, and digests Excrements, and is commended in Collicks proceeding from a cold Cause; if in the North wind, it Causes coughing, but it quickens the senses; if in the *South wind*, it fils the Head, and loosens the Belly; if in the *West wind*, tis the wholsomest of al other; if in the *South-East* wind, it smites the Body; if in the *Sun*, it hurts a mans Head, it melts what is hot, and makes that which is dry, yet dryer. Touching *walking in the shadow* observe. I. That we must avoid trees ful of dew; because the surface of the trees being melted by the dew, an harmful liquor drops upon the bodies of such as walk under them, which bites and Chops the outward parts. 2. That walking is most wholsome, which is performed, under the Myrtle, lawrel, or bay, and among sweet-smelling Herbs. *When the Skie is clear*, it lightens a man, exhales Vapors through the pores, makes a man breath wel. *When the Skie is Cloudy*, it causes heavyness, fils the Head. *In the Morning*, loosens the Belly, expels sluggishness caused by sleep, procures appetite, and is good for moist constitutions, for it dries up the Humors out of the passages. *An Evening walke* prepares a Man to sleep, disperses inflations, and hurts a weak head. *After Meat*, a little walk, is good for those that are accustomed thereto, and whose meat does hardly descend. 6. *Standing upright*, universally considered, is bad for such as have a weak Back, or are troubled with Inflamation and Ulcers of the Kidneys: Considered particularly, *before* meat, it is good to void the Excrements of the Belly, for persons asthmatical, and to provoke Urin, and strengthens the Legs; but tis not fit for such as are subject to swimmings in their Head, because in that posture the Vapors mount into the Head. *After meat*, if it be *Moderate*, it assists the descent of Meat into the bottom of the Stomach; if it last long, it sends plenty of Vapors into the upper Region of the Body; it throws down a multitude of Humors, into the nether parts, weakens the Chest, and vitiates the Bladder, and the whole Action of making Water. To *stand in the shade* has the same effect as walking therein, the difference is only in more or less. To *stand in the Sun*, does burn a man more in the Summer time, then to walk therein, and in a body impure, it very much hurts the Head, &c. X. *Of motions caused by another*, there is. 1. *Riding on horseback*, which if it be quiet and slow, breeds great wearyness, and makes men unfruitful as to generation; if the pace be *Swift*, and not very frequent, it makes those that ride, enclined to bodily lust, by continual motion and rubbing of the genital parts, and shakes the body in a wearysome manner, and is very bad for the Chest: if it be upon a *Trotting horse*, it offends the head, the Neck, the back, and Buttocks; but it brings gravel from the Kidneys: to *Ride ful Speed, or on Gallup* is too heating, duls the senses, and offends the Eyes. 2. *Gestation or being carried*, in general, in persons sound and sickly, encreases Natural heat, and discusses the multitude of the matter: but in persons that cannot sleep, it brings rest, by digesting those excrements, which slip from the Head into the Stomach, &c. Particularly. Riding *in a Coatch*, if it be not violent, is good in diseases of the Head and fluxions of the Bowels, but it is hurtful to Epileptick persons, because the motion of the wheeles makes them giddy: if a man ride with his *Face to the hind Wheels*, tis good for a weake sight, and helpes much the Obfuscation thereof. If it be *very fast*, *Celius* commends it to make a man lean that is over Fat. In an *Horse-litter* tis convenient for healthy people, that are to follow their business after dinner, and it was anciently the manner to carry sick people on that fashion in an horse-litter. Lethargick, and Nephritick persons *lay along*, &c. For so the Morbifick matter was made fit for Expulsion; those that were troubled with some light and long lasting Diseases, and were in the perfect declination of Feavers did sit. To be carried in a *Chair* or *Sedan* is good for cold Natures and which evidently decline. But of al these Exercises, consult the learned treatise of *Mercurialis de Arte Gymnastica*, which I shal peradventure over-look, and cause to be again published with some notes of mine. IV. I shal not need to speak of Rest; al that can be said, may be collected by any one, from what we have spoke of Motion.

III. *Sleep* is also necessary for preservation of Health, and likewise to refresh the wearied Members of our Bodies, and to restore the spirits, which are the Soules Instrument, in the performance of her Actions. If it be *moderate*, not only the wearyed forces of the body

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are thereby refreshed, and the spirits washed with dayly labors, repaired; but also the heat is drawn inwards, by which means the Aliments and crude Humors are happily digested in the whol body; the whol body and especially the Bowels are sweetly moistened, and the body is made generally stronger; cards are removed, anger appeased, and the mind made more peaceful; immoderate Evacuations, saving sweat, are suppressed; and especially, sleep is good for Old people. Contrarily, *Immoderate Sleep* obscures the spirits and makes them sluggish, and stupefies the mind and Memory, and blunts the Edge of Natural heat, by augmenting crude humors, and stopping the Issue of such as are superfluous. Also sleep which is taken after the body is any waies Emptied, does dry and extenuate the same.

IV. Also *Watchings* are either *moderate* or *Immoderate*. The former excite the spirits and render them more lively, distribute the spirits and heat into al parts of the Body, help the distribution of Aliment, and further the Expulsion of Excrements. But *Immoderate watchings* consume and dissipate the spirits, especially the Animal, and dry the whol body, especially the brain, encrease Choler, sharpen and enflame the same; and in conclusion, the heat being dissipated, they cause cold Diseases.

Chap. 3. *Of Non-Natural things Externally used.*

NOn-Natural *things Externally used, are*, Bathes, Oyntments, *Frictions*, and Garments.

I. Touching *Bathes*, observe. I. That they alter as much as the Aire it self, but diversly according to the difference of Temperatures, and there is in them more Artifice than in the Air. II. That they frequently and very much hurt, Cheifly persons not used to them, Plethorick persons, such as are Cacochymical, have Catarrhs, are subject to Inflamations and *Erycipelas*. III. That they are made, either of *Liquors*, as fresh water, Medicinal Fountains, Decoctions of Herbs, Oyl, milk, Wine, &c. Or of *Vapors*, or of some solid substance, which is hot, as sand, Salt, Pressings of Grapes. IV. *The Vapors of fresh water*, Heats, first moistens; relaxes; afterwards Melt congealed liquors, and procures sweat; finally, by long use, it dries. V. *Fresh Water hot*, of it self Moistens, but at the first it heates; afterwards the hot Vapors breathing forth, it cools, attenuates, and dries: *Luke-warm*, or such as is moderately warm, Cools such as are over hot, heates those that are overcold, and withal Relaxes, and used an indifferent time it fattens, and digests the Excrements beneath the Skin, and by long tarriance therein, it resolves and discusses them, wherefore to hot leane Natures and to such whose heat is biting, it is good, being tarried in an indifferent while; also for Melancholick persons, Hectical persons, such as have dry Feavers and are thirsty: also it chases away wearyness, Mitigates pains, is good for Diseases of the Skin. *Cold Water* cooles, but withal stops the passages, makes the Skin hard and compact, strengthens the whole Body, recalls heat into the lower parts of the Body, by which means it helps Concoction, and is a good Remedy against hurts springing from external Causes, if we use it moderately and rightly. It is bad for such as grow, & use not good diet, nor exercise, or are inclined to crudities and stoppages, and breed sharp vapors, VIII. *Artificial Baths* are to be judged of by their Ingredients. IX. *Waters of Medicinal Wels*, do alter the parts, according to their Quality, so that the *Sulphureous* do dry, heat and resolve: the *Nitrous* do dry and clense, &c. See of them *Fallopius*, *Mercurialis*, and *Bacius*.

II. As for what concerns *Anointings*, they were anciently used before and after bathing, as is every where apparent in *Galen*. But because they are now grown out of use, I shal therefore say nothing of them. See *Galen* in the second Book of the Faculties of simple Medicaments, Chap. 2. and 4. Also in the seventh Book of his Method of Curing, Chap. 6. and *Mercurialis*, in the first Book and 8. Chapter, of his Gymnasticks.

III. The effects of *Friction* or *Rubbing* are various according to the Differences thereof. 1. *Hard* friction hardens the Body, contracts the flesh and makes it compact. 2. *Soft*, Softens, Loosens, and dissolves the same. 3. *A middle Sort*, has an effect between both. 4. *Much* Rubbing, lessens the Flesh, dissolves the same, and Causes leanness. 5. *Little*, leavs it in the same Quantity it was in. 6. *Indifferent*, encreases the flesh. 7. *Morning* friction, is best used after the voidance of the common superfluities of the Body, being useful for such as are dried, and find a wearysomness upon them.

them. *Evening Friction* is good for wearyed, dried persons, and such as nourish not.

IV. *Hippocrates* treats of *Garments*, where he speaks of the ambient Aire, in the sixth Book of his Epidemicks; I conceive best to place the consideration thereof among things externally applied to the body. Al Garments in general, do in some measure heat the body, both by keeping off the cold Air; and keeping in the steams of the body, and introducing a true and genuine Heat. The effect of Cloaths varies according to their Differences. 1. *Silk-Taffaties and Grogarans*, do heat, and because they are soft and tender, they soften. 2. *Plush* and *Velvet* by how much they are deeper and richer, so much the more they heat. 3. *A woolly* garment heates and dries much. 4. A Garment of *Skin*, if ful of hairs, is warmest of al other. 5. A *Scarlet* garment, cals forth the spirits and Humors, with which it has Analogy from the Centre to the Circumference, and therefore is accounted hot. 6. A *Perfumed* Garment hurts an hot brain, and breeds the Head-ach. 7. A *Linnen* Garment whitened with Lime, does bite the Skin, and Causes an Itch. 8. An *Hempen* Garment, is more dry than one of Linnen.

Chap. 4. *Of Non-Natural things which are voided and retained.*

NOn-Natural things which are voided and retained are, both those which in the nourishment of the Body Nature retaines to restore the decaied substance thereof, as also those parts which she separates and voids forth as unprofitable.

Touching them, *observe in general.* I. That *Excrements* do vary according to the Concoctions. Some are *simply* such, as Urin, internal Vapors, fumes, Dandrifs, Sweate, Moisture, Ichor, Tears, Flegm in the Eyes, Menstrual blood, Hemorrhoid-blood, spittle, Snivel, Pose, Droppings of the Nose, Eare-Wax, Dung: some are *for the sake of Children*, as Milke, Seed, Mothers-blood. II. That they are necessary in point of health, which continues in good case, if they be conveniently voided; but is prejudiced, if they be either retained, or unseasonably voided forth.

Particularly, three of them are most considerable, Viz. *Excrements* of the *Belly*, *Urin*, and *Venereal*. I. The *Excrements* of the *belly*, if they are often voided and carry with them the Vitious Humors, and so lighten the Body, they confirme health: if too *frequently* and *too long*, the body is defrauded of necessary Aliment, and begins to pine away, the forces of the body are weakened, and many times the guts are as it were shaved. *If not in due time*, they hinder digestion by putrid vapors, hurt a weak head, and breed molestation to other parts of the Body. II. The *Urine*, if too long kept in, does not only burthen the bladder and neighboring parts, but oftentimes does so stretch the same, that it cannot afterwards contract it self. And in case the Reins do not draw unto themselves the Wheyish moisture, remains mixed with the bood, and being spread al over the Body, it affords matter for the Dropsie and Cachexy. III. *Seed* unseasonably retained, causes heavyness of the whol body: and if it be corrupted, it Causes most greivous accidents: being voided in *too great a Quantity*, it dissipates the natural heat, weekens the whole Body, heaps up crudities, hurts the Nerves, brings the Palsie, and weakness of the mind.

Title, II. *Of the Method of preserving Health.*

Chap. 1. *Of preservation of Health in general.*

THe Method of preserving Health, is a Doctrine which prescribes rules how to use the Non-Natural things in such manner as to preserve the body in health.

The *End* thereof is therefore, the Conservation of Health, which consists in Preservation of the temper of the whol body, and al its parts, and of their specifical proprieties and occult qualities, and of the due shape of the Organick parts, and of that unity which is common to both.

Those Precepts, are either *most General*, *General*, or *Special*.

I. The *most General*, are as it were common principles, by which convenient diet is governed, and they are these following. I. That whatever is according to Nature must be preserved. II. That we must alwaies aime at a Mediocrity. For too much of any thing is an

enemy

Enemy to nature, which *Phocylides* excellently expressed, *Eate and drink and discourse with moderation. Moderation is the best thing in the world, and Excess is destructive.* III. That sudden changes are to be avoided. For much at once, or suddenly, to empty or fil, to heat or cool, or any other waies to alter the body, is dangerous, as *Hippocrates* has it in his second book, Aphorisme 51. IV. We must not lightly alter Custom. For Custom is a new nature, and things to which we have been long time accustomed, though bad, are not so troublesome as those to which we have not been used, as *Hippocrates* in his 50. Aphorisme of the second Book, instructs us. Now after what manner Custome is a new Nature, and what power it has over our actions natural, vital, and animal, and over the parts of our bodies, see in *Renatus Moreau* upon the 15. Chapter of *Schola Salerni*, p. 215. and *Senertus* in his *Paralipomena*, page 48. V. Bodies perfectly in health, must be cherished with things like; such as recede from the exact state of Health, ought by little and little, & modrately to be reduced to a contrary condition. VI. We must so far be careful to preserve occult proprieties, as that the temper of the body may not be hurt. VII. The inbred Heat of al the parts, must be preserved with things moderately hot, and moderately astringent.

II. The *General* precepts concerning the nonnatural things, wil be delivered best according to their order in which we reckoned them, in the foregoing Title.

I. The *Aire therefore*, 1. Must be chosen temperate, pure, not stinking, free, as being most healthful; and that aire must be avoided which is ful of corrupt exhalations. 2. We must by al means avoid the chopping out of an hot aire into a cold, or out of a cold into an hot. 3. A cold aire must be altered, by a fire, by hangings, by a stove; an hot, with cold water powred out of one vessel into another, or sprinkled upon the floore, by strewing of roses, water lillyes, boughs of willow and Agnus Castus. A moist, with a bright fire, and perfumes; a drie, by sprinkling of water, and with moistning herbs; a pestilential, with burning aromatick woods, and franckincense. 4. Those that have leisure must walk out into the fields to enjoy the open aire. 5. In the the morning 'tis good to walk about the mountaines, in the evening about the fountaines and rivers; both because the Aire is in those parts more pure and bright; and about the fountaines and rivers, 'tis lightened and clarified by the setting Sun; also because in the morning, we are not very hot, by reason of the foregoing night; in the Evening in regard of the heat of the Midday sun, we may be delighted with the coole aire of the waters. II. Touching *meat*, we must observe some things in general, and some in special.

I. In *general* observe, 1. That we must choose such meats as are most temperate and familiar to our Natures, such as wel bak't bread, flesh of beasts, and such things as they afford for food, fishes, &c. Of bread the best is, that which is wel leavened ful of eyes, wel kneaded, and wel baked in an oven not too hot, seasned indifferently with salt, and made of the best wheate. 2. Also we must use a most simple diet, and of several sorts, to avoid satiety, provided that it be not at the same meale of different substances, and different qualities, but of the same nature, that it may be digested with the same heat, in one and the same space of time; and that we eat not over much. 3. We must have a special Eye to custom, by the power whereof, some have fed on poyson without hurt. 4. The worser, but more pleasing meat and drink, is to be preferred before that which is better, and not so delightful. For the Stomach greedily attracts, straitly embraces, and happily digests such kind of meats.

II. Particularly we must have an Eye to the *Quantity*, *Choyce*, *Sawces*, *Time*, and *Order*: of which I shal treat, when I handle the diet of persons of a middle Age.

III. Of the rest, there is nothing to be said in general: only this may be added, that we must according to the advice of *Celsus*, take heed lest in health we consume, that which should assist us in sickness. It is better, daily to use moderate exercise, to prevent the collection of superfluous excrements, than to use purgations or other medicaments.

[Read more of this subject in the Guide to Physick and Chyrurgery, *Riverius* Practice of Physick, and his Observations; and the *London Dispensatory*. Al of the last Editions, Englished by me.]

Chap. 2. *Of preservation of Health, in Special; and first of the good Habit.*

Article, 1. *Of preserving the Health of wel habited persons.*

Point, 1. *Of preserving the Health of Infants, Children and youths.*

SO much shal suffice to have said of preservation of Health in general: let us now see how health is to be preserved in several sorts of people. And this preservation is *either of wel constituted*, or *Intemperate persons.*

Wel habited or wel constituted persons, are either *Infants*, both such as are in the womb, and such as are born; or *Children*, or *Youth*, or Men of *Middle Age*, or *Old Men.*

I. *Children in the Womb*, wil fare wel, if the woman with child, shal do some things and avoid other some. Among *things to be avoided* are, 1. Aire which is moist and southern, the stink of candles put out, and which arises from Castoreum, brimstone, and such like things. 2. Also the smell of strong herbs, as rue, penneroial, Mint, and of sweet smelling things, if the woman be subject to mother fits. 3. The sight of things horrible and fearful. 4. Sharp, bitter and salt meates, which open the mouthes of the veins, such as are, Garlick, Onions, Mustard, Parsly, &c. as also such as cause wind; to which ad strange things, and hardly to be obtained. 5. Motion which is violent either of body or mind, especially in the first months; also vacancy of motion, which collects humors in the body. 6. The use of venery, at the begining of conception, least the child prove abortive. 7. The use of Bathes, least the ligaments of the womb should be loosned. 8. Too much laughter, or imagination. 9. Costiveness of the belly, which may be cured by the use of broaths, and of Manna. Among *things to be used and done* are, 1. Temperate Aire, drie rather than moist, 2. Meat of good juice and plentyful in the last months; Apples, Quinces, which are thought to strengthen the child; also the eating of toasted Figs every day before meales is commended, when a womans time draws nigh, because 'tis thought, that the secondine is hereby more easily separated and brought forth. Also saffron and Cinnamon are commended after meales. 3. Moderate use of good wine or cleare beer. 4. Motion somewhat strong in the last month, to dilate the parts. 5. Moderate use of venery about the same time. 6. A Bath of luke warme water, which opens the Genital parts, and prepares them to the birth. 7. More sleep than watching. 8. The use of such things as comfort the child; among which are Balsamus Embryones, and sweet almonds with Malmesey, as most excellent.

II. *Infants new borne* for the first septenarie are thus to be ordered. 1. As soon as they are borne, the dung must be avoided by giving them sugar penids with oile of sweet almonds or honey, to prevent the Falling-sickness. They must not be put to a nurse, unless the mother be weak, subject to sickness, or bad manners. 3. For two years or eighteen months it must be nourished with milk, as that it be in the meane while inured to other meats. Pap made of wheat meale and milk, usual amongst us; which because it breeds gripings and obstructions, either the wheat flower must be dried in an Oven; or white bread crums moistened with Hens broath, must be used in stead thereof. 4. Its diet for the first three yeares, must encline to moisture. 5. Being new borne, it must be washed every day; after the third month to the seventh, every other day; from the seventh month til it is weined, twice every week. 6. About the End of the first seven years it must be seldom bathed; and not soon after meat or drink, least crude juice be drawn into the body. 7. Wine must be avoided til the one and twenteth year, according to *Plato's* precept. 8. The more it grows, the more it must be exercised, but so as care be taken, that no member be distorted, or untimely dried. 9. As it encreases in growth, it must by little and little abate of its sleep.

III. *Children* require, 1. More solid meats, but moderately drie, left their moisture be suddenly diminished. 2. Stronger exercise, yet somewhat less than their strength can wel beare.

IV. To *such as are ripe*, must be given, 1. In *general* such kind of diet to begin with, as they are to hold al their life, that they may inure themselves thereto. 2. Meats, which in little Quantity do nourish much. 3. Stronger Labours, that their bodies may be fitted for al kind of exercises, & al sorts of weathers. 4. They must avoide Venery, which does too soon dissipate natural Heat, and cooles the body. *Particularly*, Students ought to have a Care of their animal spirits, that they may be

plentiful, neat and pure. Such are bred by ſubtile and pure aire; Thin diet, and of good juice, due evacuation of excrements; avoidance of unſeaſonable ſtudying, by which crudities are multiplied, and the body made ſickly.

Point, 2. *Of preſerving the Health of middle-aged perſons.*

Wee cal that Middle-Age, which taking its beginning from the third ſeptenary, runs through the four ſextenaries following, and is finiſhed in the fifteenth yeare, ſo as to comprehend Adoleſcence, Youth, Virility, and ripe Age.

We ſhal preſerve the Health of this Age, if we ſhal obſerve ſome things, touching *Meat, Drink, Affections, Motions, Sleep, Bathes* and *Excretions*: and if any error be committed, we muſt mend that the following day.

I. In *Meat* reſpect is to be had, 1. Of *Quantity*, touching which obſerve. 1. That it muſt be ſo much, as is requiſite to reſtore the ſtrength of the body, & not to burthen the ſame, which may be gathered, by the ſence of hunger ſix or ſeven hours after eating; by belching, abſence of Heavineſs and ſmel, quiet ſleep, abſence of watchings, and bad taſt in the Mouth, and if the Head be not heavy at Sun riſe, and a man be fit for any buſineſs. 2. We muſt cheifly have reſpect to three things, 1. The nature of the Aliment, in which reſpect, Meats hardly digeſted taken in overgreat Quantity, are more hurtful than thoſe eaſily digeſted, ſo taken. Plenty is pernicious when it has a bad quality joined with it, unleſs it be ſome waies diminiſhed by the ſweetneſs thereof. Thoſe who have a cold ſtomach, ought to eat leſs; becauſe ſuch a ſtomach deſires more than it can digeſt; the hot ſtomach may have more, becauſe it digeſts more; thoſe whoſe ſtomach is temperate, may make their appetite the meaſure of their eating, not eating before they feel themſelves hungry. 'Tis better that the Heat of the ſtomach exceed the meat, than that the meats ſhould exceed the Heat of the Stomach. 2. The kind of Body and courſe of life, and the Labours of a man; in reſpect to which thoſe that are idle muſt eat leſs, becauſe they digeſt leſs; paines-takers muſt eat more, becauſe their Heat is augmented by exerciſe. 3. The time of yeare, and Conſtitution of the Heavens; in reſpect of which we muſt eat more in the winter and ſpring, becauſe then our ſtomaches and Inwards are naturally hotteſt. And the contrary muſt take place in Summer. 3. We muſt by Faſting, ſpare diet, ſleep, quiet and Vomiting correct any error committed, either through bad cuſtome, or allurement of eating. Oft times nature being by the takeing of ſome good food, invited to digeſtion, has ſet upon ſome Crudity which before ſhe could not maſter. II. Of *Choyce*, where note firſt that the fleſh of beaſts, is more familiar to our Nature than any other food. 2. Of *Fouls*, we commend a duck of a yeare old, in the winter, and therein the Pulp of the breaſt, the Liver, and the after-parts; of a wild foul the wing, from September to Januarie. A *Gooſe* of a yeare old, in the winter, and therein the breaſt, Liver, and after parts; Goſlings of a month old, in the ſpring and ſummer. A *Capon*, of a yeare old, from October to April, and therein, the wings, the rumpe, and the fleſh along the breaſt bone. A *Quail* in Aguſt, September, and the whol winter. *Young pigeons* of three or ſix weeks old, of which the thighes, and belly are the principal parts. An *Hen* of a yeare old, in January, February and March, and chickens of ſix or ſeven weeks age. A *Turkey-Hen* in the winter, her breaſt and belly, whoſe chick is beſt in the ſpring, of two or three months old. A *Partrich* from October to the ſpring, in al its parts, but cheifly in the wings. Whoſe chick, of ſix or eight weeks old, in July, Auguſt and September, is meat for a Prince. A *Pheſant* in Autumne, and winter, in its wings rather than Legs, whoſe chick of ſix or eight weeks old, in the Summer, is moſt ſweet meat. A *Thruſh* of a month old, in Autumne and winter. III. Among *four footed beaſts* are approved the *Oxe*, from September to March, eſpecially if he be five yeares old; his chiefe parts are the Breaſt, Loines, and Muſcles of the Hips. A *Rabbit* in winter and ſummer, its back parts, hips and wings. An *Hare* in cold winter. A *Leverit* or young hare of two or three months old, at al times. A *Kid* in the ſpring, of a month or two old, it is better to eat of its hinder parts, ribs, belly, head and feet, than other parts of the Body. An *Hogg* of two yeares, in the winter, the fleſh on its back-bone, Loines, Ribbs, Eares and Feet. A *Pigg* at any time. A *Calfe* from December to May, its Loins, breaſt, Belly, Head, Liver, Kidneyes. I forbeare to ſpeake of Fiſhes, that I may not outgoe the bounds of a compendium. III. Of *Sawces*, touching which obſerve, 1. That ſtrong & healthy perſons, muſt

use very little sawce. 2. Wee must abstain from such as differ much from our constitution. 3. Wee must use such as come neareſt the temper of the meats we eate. 4. In the Summer, and such as are of a chollerick Constitution cold sawces must be used, in the winter and in flegmatick Constitutions hotter may be allowed. 5. Wee must so use sawce, as never to eat more than the heat of our stomach can digeſt. IV. We must have regard to the *time*, that is to say, how often and when we must take food. Touching both which points observe in general. 1. That we must not eat much and often, as the champions of old were wont to doe; becauſe that is good neither for the body nor the minde. 2. It is better to eat often and a little, than much at once: for so neither shal the stomach be oppreſſed, nor the body Pined. 3. So often at our pleasure, as we feel our selves hungry. Now this varies, according to age, Temperament, kind of Life, custome; yet the moſt healthy course for such as are exerciſed with moderate labours is to eate twice a day; hard labours may eat four times a day. Nor must we eat, as soon as ever we feel our selves hungry, nor must we defer too long after Hunger summons us. For the former breeds crudities, the orifice of the stomach being provoked by reason of its exquiſite sence of feeling; the latter fils the stomach with bad humors. 5. Cholerick persons, lean people, such as use much exercise, must feed often. For the former doe easily faint away through fasting; especially if choler be shed out into their stomach. The latter have their bodies apt to transpire and spend. The over exerciſed doe dissipate much. 6. To cold and moist persons, to fat and corpulent, such as are busyed with little or indifferent labours, less meat is to be given, for the contrary reasons. A Temperate man may eat twice a day. 8. Becauſe al the meat is not digeſted in the stomach at one and the same time; but one part descends into the guts before another, there needs no such subtile enquiry about the space of time which must goe betweene dinner and supper; Provided there be no manifeſt signs of Crudity and repletion, the supper may be foure, five, or six houres after dinner. 9. We must so keep to an houre of eating, that we sometime transgreſs the same, leaſt exact custome may occasion some danger, when we are forced to miss our time. 10. We must alwaies have great regard to custom. For those that are accustomed to eat twice a day, if they miss their dinner, are troubled with heart-burning, sharpeneſs of urine, &c. 11. Although tis Scarce determinable, whether a man that is in health, wel tempered, and at his owne diſpoſe, should eat more largely at dinner or at supper; seeing there are strong reasons on both sides, and concoction in the stomach, seems to be better by day than by night, as we finde by experience, that it is better, in the night than in the day; yet is it certain, that some kind of meats are better at dinner than at Supper, as onions and other vaporous meates; and that not only old persons, but those also which deflect from a good state of health, and are troubled with Catarrhs, weakeneſs and swimming of the Head, ought to sup more sparingly than dine. V. Of *order*, in respect whereof note. 1. Becauſe al meats are changed into chyle, and those that are sooneſt digeſted, are drawn by the Liver, spleen, and guts; it matters not with reference to Coction and generation of Chile, in such as are in Health, what meats are eaten first and what last; yet it is beſt to take liquid meats before those that are sollid, becauſe they are sooner reduced into act, and by their fermentation doe help the Coction of the other meats; also to take laxative meats before such as are binding, if the mouth of the stomach be not looſe beneath, leſt being retained long in the stomach they bind the belly; such meats as are apt to corrupt must be taken before others, that the orifice of the stomach being looſened, they may the more easily pass away: astringents before Laxatives, if the retentive faculty of the stomach be weake. 2. Corruptible meats are moſt conveniently eaten alone, an houre or two before any other; leſt being of a divers Nature, they defile and corrupt the Chylus.

II. Touching *Drink*, take these Rules. 1. We must drink so much, that our meat do not swim in our stomachs. Moderate drink moiſtens the body, cheriſhes the spirits, helps the distribution of meat, &c. Overmuch drownes the heat of the body, breeds crudities, disturbs the mind. 2. We must drink between whiles at our meals, and we may drink after meat, if our meat pass not easily out of the stomach; but not til digeſtion is over. If you drinke during your digeſtion, Coction is troubled, and the meate is drawn crude unto the Liver. 3. We must not drink fasting: becauſe it weakens the nerves. 4. It is moſt convenient to drink a little and often at meals, than to fetch al off at a draught or two: the former

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mer manner quenches thirst, the latter breeds fluctuation in the stomach. But see touching dinners and suppers *Bernhardus Paternus*, and *Stuckius* in his first book of the Feasts of the ancients, Chap. 14.

III. The *Affections* ought to be moderate; and therefore we must be obedient to reason, whose part it is to bridle them.

IV. The motion of the Body ought to vary, according to the Nature of several Bodies, the time, place and manner. And therefore. 1. Leane persons must be moderarly moved, strong persons strongly, respect being had to custome; touching which *Hippocrates*. Persons used to daily labours, although they are weak and old, do more easily undergoe their daily labours, than persons unaccustomed, though strong and yonge. 2. While a man is hungry, or meat remains undigested upon his stomach, he must not labor, for if he doe, the nourishment wil be drawn undigested into divers parts of the body: but he must not continue too long fasting neither, for then, the natural heat wil be dessipated, and bad humors wil be brought into the stomach. 3. Motion must goe before and follow after eating, but such as is light. The former removes such excrements as stick in the narrow passages; the latter, brings down the meat, into the bottom of the stomach. 4. Those whose head is weak or ful, must not walke in the Sun. 5. Motion and Rest must follow one another interchangably. 6. Men must leave off exercising, when their face begins to be coloured, and sweat begins to break forth. 7. A man must not study presently after meat, least the heat be called forth of the stomach, and the brain be filled with vapours.

V. *Sleep*, as to the time, ought so long to continue, til the meat is digested, and the spirit restored. It must not therefore be continued beyond nine hours, nor must it be less than sixe. Nor is sleep in the day time commendable, unless a man have passed the greatest part of the night without sleep, otherwise the Head wil be filled with vapours. Also that sleepe is not allowable which is after Sun-rise, which by its beames opens the passages of the body, and cals forth the humors and spirits from the Centre to the Circumference: as for the manner of lying in bed, it ought to be upon one side, begining on the right, that the stomaches digestion may be assisted by the Liver, the thighs and armes being moderatly contracted, the head a little high, the rest of the body as softly reposed as may be. As for the place, the moon-beames must be avoided: Let the bed be soft, fit to keepe off the injuries of the aire. Whether the Head should be covered or no, I leave as a thing doubtful.

VI. Touching Baths, observe these following rules. 1. They ought to be neither frequent nor long; for they dissipate natural heat, and cause a redundancy of il humors. 2. We must not goe into the bath, before our meat be digested, least crudities be drawn into the body. 3. We must not eat nor drink in a bath. 4. We must come out of the bath before we we be weary, nor must we eate or drink, before the heat be expired. Concerning washing of the head and feet, I shal only ad, what followes. The former is not good in Head-ach, or Catarhs; in other cases, it opens the pores, and lets out fumes: the latter drawes humors from the Head.

VII. Excrements, because they are daily accumulated, ought also daily to be voided forth. And therfore, 1. A man should goe to stoole as soone as he rises. 2. If he cannot doe that, his belly must be moved with the broath of an hen, and other lenitives. 3. The Excrements of the third Digestion, must be expelled by exercises.

Point. 3. *Of Preserving the healths of old People.*

By old people, I Understand such as have attained to fifty yeares age. But their Age is divided into *green old age*, which reaches from the begining of the eight septinary to some part of the ninth, and old age it selfe precisely so called. The part of Physick which takes care hereof, is termed, the Regulation of old age.

Now we shal provide wel for the health of Aged persons, if we shal observe some things in *General*, other things in *special*.

I. In *General*, we must indeavor, because in old age the body daily dries away, that the said dryness may be prevented, and that a diet hot and moist may be used.

II. In *Particular*. 1. Let the *Air* be hot and moist, and let the cold winter air, be conquered and driven away by Art. 11. Let their *Nourishment* be of good juice, and easie to digest (some commend honey to wast away flegme) and let them take a less quantity than formerly, lest too much over whelm their natural heat. Let them eat thrice a day rather than twice; nor let them ever (if possible) offende

fend in the Quantity of their meat. Somtimes let them change their Diet. III. Let their drink be, either thin Wine, fragrant, of middle Age, flegm colored or yellow, or mead, or beer. IV. Let them *avoid passions of the mind*, least their weak Natural heat be dissipated, or suffocated, and a consumption be caused. V. Their accustomed exercises, are not wholly to be omitted; but let them use light exercise before meat. Moderate frictions are commended that heat being excited after sleep, the distribution of their meat, may be more happily accomplished. VI. Let their *Sleep* be long: and let want of sleep be removed, by washing their feet near bed time, and other sleep procuring Remedies. VII. Let their Excrements be conveniently and seasonably voided forth; and because aged persons are commonly costive, because of the dryness of their temper, let them use emollient and absterstive things, as honey, Figs, Raisons, terpentine, &c. See *Sebizius* of the Diet of aged people.

Article, II. *Of Preserving the Health of Intemperate Persons.*

By intemperately Complexioned Persons, we understand three kinds of men, which deflect from the best temper, Viz. Such as are simply *Intemperate*, which indeed want their most exact health, yet can sufficiently perform the actions of life, nor are inclining to any Diseases. *Declining Persons*, which are turning from a temperate state towards some Disease, which is known by the threefold kind of Symptomes, and if they be not helped, they fal into the said Disease: and *Persons recovering*, who recollect themselves from some Disease. For the first; for Hygieine, particularly so called; for the middle sort Prophylactice; for the last, *Analeptice* takes care.

I. Touching *Intemperate Persons*, note. 1. In *General*. If they are not to be reduced into a better condition, they must be preserved with things alike in general and in special, or as they are wont to speak, in quantity and degree: if they may be reduced, they are by little and little to be used to contraries. 2. That an hot and moist temper, because convenient to our Nature, must in no wise be Changed. 3. If Dry Distemper, must be kept off, as much as may be. *II. In Particular.* 1. *Hot and dry persons*, lest they over inflame a fretting heat, or heape up sharp Excrements, must avoid hot soultry aire, hot meats, anger, over great Meditations; they must drink plentifully, but the drink must not be strong. They must use frequent Baths of fresh water, long sleep, and shun the use of hot and dry things. 2. Persons hot and moist, if moderately such, preserve their Temperament, and follow al things moderately, lest contracting plenty of Excrements, they fal into putrid Diseases. 3. Cold persons require, both hot meats, which stir up heat and consume it not, and seasonable Evacuation of Flegmatick Excrements. 4. *Dry Constitutions*, must have moist meats, and baths of fresh Water. 5. Such as are *Cold and Dry* have an unhappy constitution, which must be holpen with long sleep, frictions which strengthen the Natural heat, and discuss it not, and with a bath of fresh Water. 6. In *Cold and moist* persons, coldness must be corrected, and the moisture preserved as much as may be. Temperate exercises do stir up the Natural heat, whereby it is inabled to conquer the moisture.

II. Persons Declining, because in regard of a Plethorick and Cacochymical disposition, encline to sickness, must in the first place use rest and abstinence; and in case these suffice not, they require Blood-letting and purging. Therefore, at the beginning of the spring Flegmatick and Melancholly Humors, about the end thereof Choler, and about Autumn, black Cholerick Humors are to be purged. A pil of Aloes Rosata, taken an hour before supper, but not too often lest it hurt the Liver, may suffice to Empty the matter which sticks in the stomach, and first passages.

III. Touching persons, neither sick nor wel, but recovering, two things are to be observed. 1. That they fal not back again into their sicknesses. 2. That they may soon recover their perfect health. And therefore. 1. Because such reliques as are left in Diseases after the Crisis, wont to cause relapses: if there be as yet any superfluous matter remaining, it must be drawn away by little and little, and the parts are to be Roborated. 2. If there be no matter over, the Body must be carfully nourished, with moist Diet easie of digestion, and of good nourishment. 3. Bodies that have been long extenuated, must be repaired by little and little; such as have been suddenly decaied must be quickly repaired. 4. These things are cheifly to be used, which respect the Causes of the weakness, and may resist the Morbifick Dispositions. And so much for the Method of preservation of Health.

THE

THE SECOND BOOK OF THE IDEA OF PRACTICAL PHYSICK.

Treating of the Preternatural Affections, or Disorders of Mans Body and their Respective Signs.

The Introduction.

SO much may suffice to have spoken touching Hygieine or the Art of Preserving Health: The *Second Part of Physick followes, termed* Therapeutice, *which teaches the way to know all Infirmities which impair the Health of* Mans *body, and being known, by certain convenient Remedies to remove the same, if possible.*

Its *End* therefore is to remove (if possible) the preternatural Dispositions of the body, and to restore health lost.

Its *Parts* are likewise two: 1. *General*, which treats of the Nature, Signs, Causes, Differences and Cure of the præternatural Affections of the Body, both in General, in particular, & in Conjunction. 2. *Special*, which treates of such preternatural affections as refer to the particular parts of the Body. The former is again subdivided into four parts. In the *First* we shal treat of the Nature and signs of præternatural affections. The *Second* declares the Medicaments. The *Third* laies open the general method of curing. The *Fourth* treates of the first differences of Diseases, and delivers their Cure, considered in gross.

Title, I. *Of a Disease in general.*

Chap. 1. *Of the* Nature *of a Disease.*

THose *Affections or disorders which præternaturally infest the* Body *of Man, are three: A Disease, its Cause, and its Symptome.*

A Disease is the Inability *of the living parts*

parts of Mans body to perform their natural Actions, ariseing from their præternatural Constitution.

Concerning which we are to consider, 1. The *Subject*. 2, The *Times*. 3 *The cause*. 4, The *Differences*, 5. The *Signs*. 6. The *Issue* or *event*. Of the first four we shal treat in this Chapter, assigneing peculiar Chapters to the two last.

I. The *Subject* is the liveing parts of mans body both spermatick and sanguine: both in reference to their matter, to which Temperament and occult qualities belong; as also to their structure, to which conformation and unity do appertaine. Sometimes; altogether, sometimes many, sometimes only one of these is affected.

II. The *times* are four. 1. The *Beginning* in which the disease is crude, nor are there any signs of coction or corruption contrary thereto, present; al things are remiss, unless the matter being agitated does infest some one part more than the rest, til it is either dissipated, or thrust out into the Circumference of the Body, and healthily disposed diseases, their causes being removed, do sometimes vanish. 2. The *Augment or Increase*, wherein the Symptomes grow more burthensome, and the signs either of Coction or contrary Corruption, begin to appeare. 3. The *State*, in which there is the greatest combate betwixt Nature and the Disease; the signs of Life and Death do manifestly shew themselves, and all things are vehement: and if any Remission appeare, the reason is, because nature being weakened gives over, and is no longer able to oppose her against the morbifick Causes. 4. And lastly this *Declination* or *Decrease*, in which the disease being overcome by nature, grows gentle, and no man dies at this time, unless through the fault of himself, or the Physitian, or the disease changing into a worse. Touching all these times note in general, 1. That each of these, being not of equal length in all diseases, is subdivided after the same manner, so that the beginning hath its beginning, Augment and Declination and so the rest, 2. That Intermitting Diseases have their particular times in each fit, 3, That Diseases which receive nourishment in winter, are finnished in Summer, and contrariwise; unless they are terminated within the circuit of certaine daies.

III. When we speak of *Causes* we do not consider any material cause. For a disease hath no such cause, its subject being instead thereof; nor do we intend the formal cause, for that is explained in the definition: nor of the final, because those things have final causes which consist in perfection, whereas a disease consists in defect thereof, also it is bred and receives growth by accident; but we speak of the *Efficient Causes*, which are considered either in respect to the disease, or absolutely, or according as the things themselves are. The former are *sundry*, I. Remote, which either works as procatarctick causes, which 1, Are either in the Body, or without, and therefore have not recourse with externals, 2. They are called external, because they belong not to the Constitution of the body, 3, When manifest causes, as a sword &c. may be the immediate cause of a disease, they are reckoned with the former, 4. They stir up and put in motion such causes as lie hidden in our Bodies, so that they sensibly affect our bodies, as Watchings. 5. Of their own nature and force, they cannot cause a great disease: or they act after the manner of antecedent causes, which continue hidden dispositions in the body, which a disease may follow upon, which nevertheless are not conjoined therewith, only are defined by power of acting, and are only found in diseases joined with matter: finally, because the internal, as related to the disease, may be both antecedent and conjunct causes, they have not recourse with them. II. Next, which adhere to the diseases themselves in the body of man, so that suppose the causes, you must supose the diseases, take away the causes, you remove the diseases. Hence they are termed continent and conjunct causes, III. *Per se*, of or by themselves, by whose power the disease doth exist; and by accident which cause the same by the Interposition of some other thing. IIII. Privative, which act by absence; and Positive, which work by their presence. V. Comon and Proper. VI. Finally, external and internal, of which we shal treat hereafter.

IIII. The *differences of diseases* are either *Essential* and primary, of which and their cure we shal treat in the fift book; or *Acidental*, which are taken from the *Number, Magnitude, Duration, Manner, Event, Order, Subject, Causes, Seasons of the yeare, and Place.* For I. In *respect* of *Number*, a disease is either 1. One, which possesses but one part, or many parts but without any Interruption: which is either simple, which is joyned with no other disease, and hath the simple nature of one only sort; or *compounded*, which consists of many diseases concurring in the same part, whether they be of the same kind or not; and in

case

Case it be joined with the Cause, or some grievous symptom, tis termed *Comitatus*; as that *Solitary*, which has neither the cause, nor any grievous symptom joined with it. 2. *Many*, one of which is not in the same part which is possest by another, and these either hurt a common action, and are called *Complicati*, or *Impliciti*: or one contributes somewhat to the generation of another, and they are termed *Connexi*. 3. By *Sympathy*, which falls out, when either a part receives some humor or vapor from another place, or when it is forced to receive a matter of which it ought to be free; or when the spirit, a necessary Instrument to the souls actions, is hindred of its influxe, or when matter necessary to the action is denied: & this happens, either by reason of the sympathy of the parts, which is either of the kind, or of continuity by the nerves and membranes, of which *Senertus* treats elegantly in the 39. page of his *Paralipomena*; or of one work, or of neighbourhood, or by reason of their strength and weakness: hence comes either a Diadosis of the Humor passing from a noble to an ignoble part, or a Metastasis from an ignoble to a noble. 4. *Disjoned*, which being fixed in disjoined parts, do neither hurt the same action nor confer any thing to the mutual generation one of another. II. In respect of *Magnitude*, Diseases are, 1. Smal, which hurt the Action less than those sort of diseases are commonly wont to do, or stick in the more *Ignoble parts* 2. *Great*, which either hurt a Constitution and part very necessary to life, or Goe very far from the natural state, or have some bad quality annexed, or they deject some faculty, by hurt of which the life is endangered, or they take up a large place. III. In respect of *Duration*, diseases, are 1. *Long*, which move slowly. 2. *Short*, which moves quick, 3. Continentes, which are alwaies moved with one and the same motion, til they are quite ended. 4. *Continui*, which continually afflict, but are heightned and abated at certaine intervals of time. 5. *Intermittentes*, which have periods and Fits, and therein their several Modes and figures. 6. *Acute*, which are terminated on the fourteenth day; *peracuti*, on the seventh day; *Perperacuti*, on the fourth day; *Acuti ex decidentia*, which are terminated on the fortyeth day. 7. *Critical*, which are finished by some great mutation, by evacuation or translation. 8. Not critical, which are ended by diminishing peece meale. IIII. In respect of the *Manners* or *Conditions*, they are, 1. *Benigni*, gentle, wel affected, having no greivous symptom besides nature. 2. *Maligni*, malignant, which have somewhat of an occult pravity. 3. *Pestilential*, which come by Infection. V. In *respect of the event*, they are. 1. Healthy, which end in health. 2. *Doubtful*, of which many are saved, and many die, 3. *Deadly*, which kil alwaies, or for the most part, either because they destroy that action by which life consists, or proceed from matter which wil not admit Coction, or becaus their Focus is so far of, that medicaments cannot reach so far without loosening their strength. VI. *In respect of their order*, they are, 1. *Ordinate*, which keep their Mode, or Figure. 2. *Erratick*, which neglect the same. 3. *Relapsative*, which when they are thought to be quite finished, returne againe. VII. *In respect of their subject*, they are, 1. *Universal*, which afflict the whole Body. 2 *Particular*; which molest one or more parts, 3. *Cognati*, which are suitable to the temperament, constitution of Body, Age, Season of yeare &c. 4. *Minus cogniti*, less of kin, which are contrary thereunto, they are of *Men*, *Women*, *Infants*, *Boyes*, *Young Men*, *Old men*. VIII. *In respect of the Causes*, they are 1. *Exquisite* or legitimate, which spring from one simple Cause. 2. *Spurious* or *bastard*, which proceed from mixt humors. 3. *Hæreditory*, which spring from fault of the seed or mothers blood. 4, *Conjenit*, which happen from the first original, through fault of right shaping, though the Parents had not the same disease. 5, *Adventitious*, which come by some accident. 6, *Fientes*, which though produced, cannot exist without the matter continue. 7, *Facti*, which abide, the causes being removed. IX. *In respect of the time of the yeare*, they are *Spring sickness*, *Summer sickneß*, *Autumn sickneß*, and Winter sickness. X. In *respect of place*, they are, 1. *Sporadick*, which being of different sorts do assault sundry persons at the same time, and in the same place. 2. *Common*, or *Pandemial*, which either are never but in one Country only, or which somtimes in one, somtimes in many places, afflicts many together. 3. *Epidemii*, *Epidemick*, or *vulgar*, which at some certain time, now in some one Country, other whiles in many, do infest many folks at the same time, and they are for the most part pestilential.

Chap. 2. *Of the Diagnostick Signs of a Disease.*

THe Diagnostick Signs of a Disease, do respect, 1. The Disease in it self. 2. Its times. 3. The Parts affected. 4. The Differences of the Disease. 5. And lastly, all these together: And they are either common to many and divers persons; or proper to one Disease; which are either inseparable, or proper and inseparable together, or Pathognomonick, and Essential to the Disease, and recurrent therewith; or Assident, and supervenient.

I. *A Disease in it self is known,* 1. *From things Essentially inherent*; in External Diseases most easily without help of any other signs; in internals, by the mediation of other Signs. 2. From the *Causes*, which are either present, or have preceded. 3. From the Bodies Disposition, which depends upon Hereditarines, Age, Sex, Kind of Life, Dyet, and Evacuations omitted. 4. *From Actions Natural, Vital, Animal*, which are hurt, abolished, diminished, depraved; and that suddenly or slowly. 5. From things *voided forth*, viz. Urine, Dung, Sweat, Spittle, &c. 6. *From the Qualities of the Body changed*, color, smel, &c. which yet, do signifie rather the Cause, than the Disease.

II. *The Times of the Disease*, (whose knowledg is necessary, were it but in respect of the state, when, if ever, the signs of perfect Coction appear, and good Crises do happen) are known, 1. By *the Idea of the Disease*, be it long or short. 2. From the *time of Year, Dyet, Countrey, Temperament, Strength, &c.* Hot things are the Causes of hot and acute Diseases. Patients strength in a disease not deadly, signifies a short disease, and that the state is at hand; in a deadly disease, it shews 'twill last long. 3. From the *Mutations of the fits*, in which their Anticipation, coming later, duration, and vehemence, are to be observed: of which also see Authors. 4. From the *Symptomes of Diseases*, which are light at the beginning, strong and fiercest in the state. 5. By *Coction* and *Crudity*, which is either proper to one kind of diseases, as spittle in the Pleurisie; or common to many.

III. The *Parts affected* are known, 1. From the Causis, Things taken in, done, Retained, Excluded, and incident from without: Some are more apt to one part than another; also at some season, the Lungs are chiefly infested, other whiles the Stomach, &c. 2 From things Essentially inherent, or by propriety of the Part, and the diseases inherent in the parts. 3. From the Actions hurt, unless they be hurt by some external accident, especially by pain; of which we shal treat hereafter in a peculiar Chapter. 4. From things voided forth, in which substance, quantity, quality, and Mixture, are to be observed. 5. From qualities changed.

IV. The Signs of the first and Essential *Differences of Diseases*, shal be explained in the fift Book; in respect of the accidental, w^ch we have above propounded, Observe, I. Touching *Diseases by Sympathy*, 1 That they encrease or decrease, with the Primary Disease, and are deserted by the Primary. 2. That they infest not continually by certain fits, unless matter be continually supplied. 3. By things helping or hurting applied to the other, they are helpt or hurt. II. *Touching acute Diseases*, that they from the very beginning, and the first three daies, are extreamly burdensom to the sick, and have grievous symptomes, because they proceed from hot, sharp, thin, and movable Humors, which vehemently provoke Nature. III. *Concerning malignant diseases*, 1. That they arise from Causes both external and internal, which are offensive by their whol substance. 2. That in them, the Patient is frequently unquiet, though he cannot tel of any vehement or dangerous symptom; that in the beginning the Patient is often held with a deep sleep, is not eased by sweats, or other Evacuations, shivers, grows hot, bleeds at Nose, without any appearing Cause; but in other respects they seem troubled with a slow Feaver, with signs as it were of Recovery, and upon a light occasion faint away. They talk continually, and their Tongue is black and rough. 3. That the same diseases, after a light Remission, the malignity having spred it self through the Humors, are most suddenly, and vehemently exasperated. 4. That in them, the paines which were, do remit and abate, without either Excretion or Riseing; the pulse in respect of the feverish Heate, haveing an unwonted parvity with Inequality and Frequency.

V. All those promiscuously regarding signs are afforded by the differences of Urines and Pulses.

I. The differences of *Urines*, are taken from their *Consistence, Quantity, Quality, things mixed with and contained therein.* 1.

As

As for *what concerns the Conſiſtence*, *Thin* urine argues too much drinking, a ſtrong obſtruction of the Kidnies and Uriters, and want of natural heat proceeding only from diſtemper. Defect of that ſalt, which is wont to be reſolved out of the meat. Thick, argues oppreſſion of the heat by abundance of Humors *indifferent*, ſhewes vigorous Heat, an exquiſite digeſtion, of the ſtomach, Liver, and veins. *Cleare and tranſparent*, perfect concoction, goodneſs of Humors, whence afterwards it makes a ſediment. *Troubled*, proceeding from the cold of the aire, and admitting amendment by the fires Heat, in continual Fevers, argues a rudiment of Coction. *Troubled* which is made ſo, ſhewes diſeaſes of the Kidneyes or bladder, plenty of crude, thick and clammy humors, out of which many thick flatulencies being produced, they are mixed with the Urine, and hinder the matter from deſcending, ſudden obſtruction of the Liver, Spleen, Reines, &c. Solution, if it happen ſuddenly. *Confuſed*, which is in all parts alike, and hath no Hypoſtaſis, ſhewes diſeaſes in the veins, and properly confuſion, corruption & putrefaction of the Blood and Humors, which are in the greater veines; and therefore 'tis only obſerved in fevers, and thoſe continual and malignant. *Fatty* defilement of the alimentary Humor, which flowes into the parts, ſo that it cannot be converted into their ſubſtance, whereupon diſſolution followes. II. *As for the Quantity, much*, ſignifies immoderate drink, diuretick Medicaments, cold diſtemper, and *cold* preſſing and ſqueezing forth, moiſt diet. Heat of the Kidneyes attracting water ſhut up in ſome place, reſolving of the Body into liquor, either of its own accord, or by force of Heat, to which fatneſs is joyned. *Little*, ſhewes little or hard drink, overgreat ſweates, plentyful ſtooles, obſtruction of the Kidnyes, Ureters, Bladders, Neck, and Bladder, vehemency of feveriſh heat, the drinks turning to the bodies nutriment, which ſometimes happens to ſuch as are in away of recovery from ſome diſeaſe. III. *In reſpect of the ſmell, fragrant* Urine intimates the uſe of Terpentine, Musk, Benzoin &c. For from internal cauſes ſuch Urines can hardly proceed; *Stinking Urine* argues eateing of rotten cheeſe, garlick, an Ulcer of the Kidnies, Privities, neck of the bladder, putrefaction of humors if it be freſh, of the Subſtance, if an old ſtench. IIII. *In reſpect of color, white urine if thin and tranſparent*, argues plenty and thinneſs of drink, ſtrong obſtruction of the Meſentery, Liver, or kidnies, great imbecillity of digeſtion, defect of color, and ſometimes the aſcent thereof, to the belly, Head, or ſome part in the Habit of the body; if *thick, obſcure*, or like milk, it argues abundance of thick flegm. *Red*, and withal *tranſparent*, argues Heat of the Liver, or a fever; if *thick and yellowiſh*, it argues the mixture of yellow or vitelline choler, a phlegmon of the Liver, or an exquiſite ſcirrhus. *Safron-color'd*, argues the uſe of Rhubarb, Safron, or Fenel, obſtruction of the Gall-bladder, and then Linnen cloathes dipt therin receive a tincture. *Bloody*, ſhewes the weakneſs and ſlapneſs of the Liver, an ulcer and contuſion of the Kidnies and Loines. *Wine & grape colored*, ſhewes aduſtion of blood, and the change thereof into black choler. *Green*, argues verdigreiſe colored choler. *Lead-colored* argues ſtripes, melancholly, and extinction of the natural Heat. *Black*, if compounded of *green and black*, argues extream Heat, and permiſſion of black choler; if of *Blew* and *lead-color*, extinction of Heat, unleſs it come away in manner of Criſis. V. In *reſpect of things mixed*, the *Crown* which circles about the ſurface thereof, ſhewes what kind of blood is in the greater veſſels, by its whiteneſs, redneſs, and Lead-coloredneſs. 2. The *Froth* if it come without ſhaking, argues wind. 3. Bubbles *great and laſting*, argue groſs and clammy humors, as alſo wind. Such *as eaſily break*, thin and *ſmal*, in the crown of the urine, argue paine of the whol Head, if they be al over the Crown, of half the head, if they poſſeſs only half thereof; ſharp paine, if Gold-colored; mild paine, if white; long paine, if they continue long; being like ſmal ſeeds ſeated in the Crown, and moveing to and fro, they argue diſtillations deſcending from the Head, into the lower parts. 4. *Fat*, like Cobwebs, ſhewes the melting of the fat of the Kidneyes or whole Body. 5. *Branny* contents, if they ſettle, argue ſcabyneſs of the Bladder; if they ſwim they argue the waſting of the ſolid ſuſtance of the Body, by reaſon of a burning Heat. 6. *Little ſcales*, with ſtrong ſmel, argue either exulceration of the Bladder, or melting of the tunicles in the veſſels, and of the ſolid parts, by fervent heat. 7. Contents like *meale* ſignifie the ſame. 8. *Caruncles* or little bits of fleſh proceed from wounds of the Kidnies. 9. *Strings* come from the ſeminary veſſels in women that have the whites, or ſome filthy Iſſue of the womb. 10. *Blood*, from a new ulcer of the Kidnies, or of ſome Bowel. 11. *Quittor*

from

from an old and foule Ulcer, either in the Kidnies, if it be without any sense of paine, and wel mixed with the urine; or from the neck of the Bladder, if it be with paine, and not wel mixed: but however, it alwaies settles to the bottom. 12. *Gravel*, if *yellow* and *red*, comes from the Kidnies; if *white* from the Bladder; if *clammed with quittor*, from a sordid ulcer of the Bladder; if they *swim on the top, and stick to the sides*, from the Livers heat, and Aduſtion of the Blood. 13. *Seed* argues an hurt of the spermatick vessels, and swims on the top. VI. In *respect of the Contents*, which in sound persons ought to be white, smoothe, equal, and pyramidal, 1. *Little* comes from weakness of the Alterative faculty, distemper, multitude or Crassitude of humors, and dissipation of the Bodies substance by external Causes. 2. *Much*, from suppression of some customary Evacuation, if it be at the same time both thick and undigested; from strength of the aliments and faculty, if it be indifferent in substance and color. 3. *Thick*; from plenty of crude matter, or the Crisis of some old diseases. 4. *Thin*, from Crudity or digestion but newly begun. 5. *Straw-colored, Gold-colored, red*, from redundancy of choler in the veins, and from inflammation of the blood. 6. *Blewish, Lead-colored, black*, from extinction of natural heat, corruption of blood and melancholy.

II. There are many differences of Pulses that savor of vaine curiosity and idle subtilty: discreet Physitians are content to observe only these three following. *Equal, and unequal*; *Swift and Slow*, strong and weak. The *Equal*, pulse argues strength of Nature. The *unequal*, signifies either obstructions and compressions of the vessels, or abundance of Humors: The *Swift*, use increased, strength of the Faculty as yet; or at least that it is not much weakned. *Slow*, argues the contrary. The *Strong* shewes a strong faculty, and sometimes great Provocation. The *weak*, either dissipation of spirits, or expression of strength.

Chap. 3. *Of the Diseases Event, Or Issue.*

THe Issue of a disease intimates four things. 1. The Termination hereof. 2. The Time of the Termination. 3. The manner of the Termination. 4. The Knowledg of al these.

I. A Disease is *terminated* either by Health or Death. Whence the Event is healthful or deadly.

II. In respect of *Time* 'tis ended soon or late.

III. *The manner of termination* is threefold. For a disease is terminated, either *by solution*, when health returns by little, & leave by means of Coction and alteration: or by *Marasmus* or pineing, when it turns by little and little to death; *or by Crisis*, when either the disease is suddenly and perfectly finished; or there is a sudden change to the better, which is followed with health; or the sick patient suddenly dies, or the disease is suddenly changed to the worse, which mutation is followed by death. But *touching the nature of the Crisis*, or the Definition, Causes, Differences, Manners and Daies, observe. 1. That *it is* nothing else but a sudden mutation, which happens in diseases, with conturbation and evacuation, by excretion or translation, upon certain daies, tending to Recovery, or Death. II. That *it arises* in respect of the *Conturbation*, or that plenty of critical symptomes, from the agitation of Humors, and the trouble they bring to the Body, which proceeds from the influence of stars; and from an internal cause, which provokes both nature and the matter: in respect of the *evacuation*, from the strength of the expulsive faculty, which provoked by the plenty or quality of the matter, expels that which is of seizure critically, by help of the fibres and especially of the spirits and innate Heat. III. That it has sundry *Differences*. For it is *good* when tending to health; *evil* when to death. *Faithful*, when no danger of a relapse. *Faithless*, when it threatens the same. *Safe* when without dangerous symptomes. *Dangerous* which springs from a principal part. *Perfect* which takes away the whole disease. *Imperfect* which leaves some of it behind. *Wel-foretold* which has tokens preceding and declareing the same some daies next before. Unforetold, which comes unlooked for. IV. That *it happens by Excretion*, by bleeding at Nose, Vomit, sweat, stool, Urine, Hemorrhoides, Courses, many places: or by *Translation of the matter*; or by *coction of the matter*, which happens in children who digest crude humors while they sleep. V. That it has *certain daies*, which are. 1. Either simply critical as every seventh day, viz. 7. 14. 20. 27. 34. 40. For whole daies are not reckoned

reckoned but somwhat shorter. 2. Or *Indicators*, by which the future Crisis is foreshewed, and they are the middle daies of each week, as the 4. 11. 17. 24. 3. Or *Intercalares*, or Leapdaies, in which the Crisis happens accidentally, and against Nature, and they are the 3. 5. 9. 13. 19. 4. Or *Vacui*, called *Medicinales*, in which either there is no Crisis, or an imperfect and bad one; as are the sixt, which is a Tyrant, the eigth and tenth less dangerous than it. Now that such mutations happen on these daies, the Cause is, 1. The progress of the Moon, both to Quadrate and opposite signs, as also to the sextile and Triangular ones. 2. The Motion and disposition of the humors, which is the Cause, that the Crisis happens, somtimes slower, sometimes earlier. 3. The Nature of the Body, which being assisted by the Moons motions, and provoked by the Humors agitated by the Moon, begins to assaile the morbifick matter, expels the same, and so works the Crisis.

IIII. The *knowledg of the event* of a disease respects four things. 1. *The Event it self in general.* 2. *The Termination.* 3. *The time of Termination, or the duration.* 4. The Manner. The signs which shew the same are termed *Prognosticks*, and among them the chief are those that declare Crudity or Coction. 1. *The knowledg of the event of a disease in general*, depends upon a comparision of the strength of Nature with the strength of the disease, to which the foreseeing the state of the disease, confers much. *The strength of Nature* is judged, both by its natural Causes, as wel *immediate*, viz. the natural Constitution of the parts, in Temper, Conformation, and unity: as *mediate*, or remote, viz. the six non-natural things so called: as also by its effects, viz. the Actions, evacuations, and qualities changed. The strength of the disease is gathered, from things essentially inherent, causes external and internal, helpers, and effects, or consequences thereof. Here note. 1. Oftimes from many smal ones, the greatest signe drawen. 2. Many times one strong signe is prevailes more in signification than many weak ones. 3. Because some signes are better or worse, as they are joined with strength or weakness of nature, therefore the signs must be compared, both one with another, and with the strength of the sick patient. 4. Those are the worthyest signs which declare the strength or weakness of the vital faculty. 5. Oft times when some signs of Coction appear, the patient may nevertheless perish, by reason of some malignity which betrayes it self, in a weak pulse, a parched tongue &c. 6. By how much the symptomes are less and fewer, the disease is so much the weaker; and contrarily. 7. That they are less dangerously sick, whose disease is sutable to their Nature, Age, or custom, or season of the yeare; than they whose disease is like none of these. 8. That there is greater danger, when turgent humors offend, than when such as are quiet, provided they be not fixed in some part: when the disease comes from some large and frequent Error in point of Diet or the other things non-natural so called: when the Humors are mixt, than when they are simple. When a solid matter offends, than when a liquid &c.

II. *The Termination of the Disease*; and whether it wil tend to Health or Death, is gathered from the actions natural, vital, and Animal; From things voided, and qualities changed; not that those things do presently declare Life or Death, but because they promise hope of Recovery, or terrifie by suggesting a fear of Death. And therefore, I. *In respect of the natural Actions.* 1. It gives good Hope. 1. If the patient do easily take and retaine what is given because it signifies the good condition of the natural faculty. 2. If the Patient eat such things as he or she was delighted with in time of health. II. Those following breed an ill event. 1, If the patient desire meat when his strength is wasted, for that is the custom of those that are at deaths dore, and happens either by reason of a soure juice slipt into the stomach; or by reason of the great wasting of the body, by the disease. 2. If the patient have a most exact sence, because that proceeds from a great Inflamation in the bowels. 3. If he loath meate in accute diseases, and other pernicious signes are present. 4. If in burning Fevers, his tongue being dry, he thirst not; because it signifies either Raveing, or great decay in the Appetitive faculty, unless the stomach be moistened with an humor falling from the Head. 5. If in an acute disease, the thirst which was, is suddenly taken away and gone, without any cause, the tongue remaining dry and the urines crude, because 'tis a signe the patients senses languish.

II. *In respect of the vital Actions.* I. It is a good signe. 1. If the pulse depart not much from its natural symmetrie or due proportion, and there be other good signs. 2. If when there is some change to the worse, it happen from some discernable cause. 3. If there be no fainting felt, nor panting of the Heart;

or

or in case there be, they proceed from consent. 4. If respiration be according to nature, and other good signs are present; because from hence we gather that neither the chest, nor the Lungs, nor the midriff are affected. 5. If the same be great or swift; for though it should signifie great abundance of suliginous excrements; yet it argues withal the readiness of the organs, and the faculties strength. II. 'Tis a bad sign. 1. When the pulse is either very languishing, very slow, and very seldom, which is worst of al; or very little and very soft, and very hard; or exceeding frequent, but not very swift, nor very great. 2. When Respiration is great and swift, because it is usual only to such as are distracted: great and frequent, because it signifies Inflamation or Pain of some of the Instruments of Respiration; great very seldom, because 'tis a sign of distraction. 3. *Respiration smal and swift*, because it proceeds from plenty of suliginous vapours, with pain or inflamation of some of the instruments of Respiration; *smal and slow* because it shews a weak faculty. *Smal and obscure*, so that the Patient is hardly discerned to breath, because it intimats the Virtue decayed; *little, obscure, and frequent*, because it proceeds from pain or inflamation of some part necessary to respiration; *Smal* and *seldom*, because it signifies extream debility, and therefore the breath of the Patients does then come forth cold. 4. *Sublime Respiration*, in which the Chest is exceedingly dilated, and that which is inspired is little, but withal in regard of the urgent Necessity, most dense and frequent because *Hippocrates* makes such nigh unto death. 5. *Respiration with Rattling*, especially if it be joyned with other pernicious Signs, because such is that of dying persons.

III. *In respect of Animal Actions.* I. These are good signs. 1. *Not to be distracted*, which though it be no certain sign of recovery, seeing many die in their right wits; yet in diseases, wherein the Brain is affected, either by it self, or by accident, it is no bad sign. 2. For the Patient to lie in his bed as himself has formerly been accustomed, and as sound persons are wont to do, that is to say in such a posture and gesture, viz. if he lie on one side, with his Neck, Arms, & Legs bending somwhat inwards, with his body streight up, not falling down towards the Feet. 3. For a Trembling to follow a Palsie, because 'tis a token of nature overcoming or abating the disease. II. *Bad signs* are. 1. *Raving*, which though never safe, yet it is then less dangerous, when 'tis accompnnied with laughter and good signs, is light and not continual; when continual and vehement, 'tis more dangerous; bold and rash, is worst of al: but withal other signs must be observed, viz. Pulse, Respiration &c. 2. *sleep* and *watching*, if they exceed measure. 3. Coma, if it happen in the beginning or vigour of a disease. 4. *Hearing Hurt*, if it spring from evil evacuations, or decay of strength. 5. *Stupiditie*, because 'tis a sign either of a vitious humor carried to the Brain, or of natural Heat extinguished. 6. *Pains* which are *bad*, if at first, the matter being as yet crude, they afflict the principal parts; if the disease be not diminished by them; if they soon vanish away, or pass from the ignoble to the nobler pars; if in some part they are not felt, for then the Patient is distracted. The same holds good of wearines which has been said of Pains. 7. *Convulsion*, which is *dangerous*, if therein the Contraction be more vehement and lasting, if it occupy many parts, and those neer the brain, if it arise from any flux of blood, or over vehement purgation; if in acute Feavers it follow the Phrenzie, Iliac passion, or watchings: *less dangerous*, if it happen to Children, if by reason of the over-great motion of the matter to the Head or Nervous parts, if from the stomachs being fretted by a sharp humor, or medicament, or from straining in vomiting, and last not long. 8. *Hiccupping*, which is dangerous if it happen in diseases after much evacuation, if inflamations and Feavers, especially in old Men, and most of al, if other pernicious signs are present. 9. *Trembling*, which is *bad* if it happen without evident Cause in the beginning of diseases, especially long ones, & is joynd with other more grievous symptomes. 10. *Shivering* & *shaking* if they arise at the beginning of a disease, when the matter is but yet crude. 11. *Sluggish dulness*, which is alwaies bad, and without a Feaver foretels an appoplexie; in Feavers it portends extream danger, by reason of the extinction of natural heat. 12. The *Voice*, which if much changed, harsh, unequal, obscure, is dangerous; if quite taken away, 'tis a deadly token, unless some critical evacuation follow.

IV. In respect of things voided and retained. I. These following are good signs. 1. *Urines*, thin with good color; thick, if they were first thin, and are made after the beginning of the disease, reddish, pale saffron-color'd,

yellow

yellow-clayiſh, with a reddiſh ſediment. 2. *Vomitings*, which anſwer the nature of the diſeaſe, becauſe they either take away or leſſen the diſeaſe. 3. *Sweatings*, if they happen after Coction is made, if they are hot and plentiful, if they flow out of the whol body and diminiſh the diſeaſe. II. Theſe are bad ſigns, 1. *Urines thin and red*, becauſe they ſignifie a crude diſeaſe: *troubled* and *not ſetling*, becauſe in a weak perſon they ſignifie death, in a ſtronger, the length of the diſeaſe. *White*, if they continue. *Black*, if in acute diſeaſes. *Oily*, *green*, the reaſon of which have been already rendred. *Wanting ſediment*, *Swim*, *and Cloud*; unleſs the ſick have faſted much, or watched, or is of cholerick Complexion. *Thick without ſediment* with a mealy, branny, ſcaly ſediment &c. 2. *The ſtools drie*, becauſe proceeding from a fiery heat, and if withal *black*, they argue a burnning diſpoſition about the middle of the body. *Watry*, becauſe they ariſe from great Crudity, and are in cholerick diſeaſes, with bad urines deadly; in milder caſes they foreſhew a long diſeaſe. *Smal and frequent*, becauſe they argue the weakneſs of the retentive faculty. *Fatty* becauſe they ſhew the bodies being melted. *Froathy*, becauſe they argue a defluxion from the Head, & worms in the Guts. *White*, becauſe they argue either a ſtoppage of the way by which choler deſcends to the Guts, or the motion thereof, to the upper parts. *Red*, are of themſelves deadly, unleſs they follow natures conqueſt. *Black*, if from black choler, becauſe they are deadly, unleſs tempered by the mixture of others; if they come from clotted blood or melancholy, they are not alwaies bad. *Green and Verdigreaſe-color'd*, whether they proceed from Verdigreaſe-color'd choler changing to black, or from an Eryſipelas in ſome principal part, or bowel. *Lead-color'd*, becauſe they argue a vehement coldneſs of the lower parts. Finally, *ſuch as* are ſtinking, becauſe they argue putrefaction, and foretel putrid feavers. 3. *Vomittings*, if they happen at the beginning of a diſeaſe before the matter be digeſted, & are joyned with other bad ſigns; whether they be ſincere, pale, lead-color'd, black, or ſtinking, by reaſon of the Iliac paſſion, or ſmal, &c. 4. *Sweats*, if they happen too plentiful, or ſparing, or cold; and proceed not from the whol body. See the Aphoriſmes of *Hippocrates*.

V. *In reſpect of Qualities changed.* I. Theſe *are hopeful ſigns.* 1. If the whol *Habit* of the body be not much unlike that of healthy perſons. 2. The *Hypochondria*, when they are without pain, and ſoft, on both ſides equal, and not extenuated. II. Theſe ſigns following are bad. 1, when the *whol Habit* of the *Body* is not at al changed by the diſeaſe, for that argues that it wil prove long; if extenuated, it is not nouriſhed by meat in the declination of the diſeaſe, for that threatens a Relapſe; if in acute diſeaſes it ſwel, becauſe it argues the Livers heat to be weakened, unleſs the humors be critically thruſt into ſome part. 2. The *Face* when it is ſuch as *Hyppocrates* deſcribes, viz. with a ſharp Noſe, hollow Eyes, ſtraitned Temples, cold Ears, contracted, their fibres inverted, the skin about the forehead ſtretched and drie, and the color of the whol viſage green or black, eſpecially at the beginning of the diſeaſe, unleſs it were ſuch from ſome evident cauſe, and amend in a day and night. *Colored high*, becauſe it argues a very hot diſtemper in the Brain, unleſs it be a ſign of bleeding at the Noſe, or a token of a riſing that wil appear behind the Ears. *Green*, *Lead-color'd*, *Black*, becauſe it ſignifies extinction of the natural Heat, eſpecially if it ſoon appear, without any evident Cauſe. 3. The *Eyes*, when *they ſhun the light*, becauſe they ſignifie the brain hurt through diſſipation of ſpirits, and weakneſs of the Head. *Swelling and ſticking out*, becauſe they argue either reſolution of the muſcles, or abundance of humors, vapors, ſpirits flowing thither. *Hollow*, becauſe want of Heat makes them ſo, which is wont to fil the circuit of the Eye with ſubſtance. *Fierce and horrid*, becauſe proper to diſtracted and frantick perſons, and are ſigns for the moſt part of Convulſions, or alſo of death joyned with other ſigns. *Fixed* and *ſtable*, or *ſet in the Head*, becauſe they proceed from Convulſion, and with bad ſigns threaten death. *Diſtorted*, becauſe they betoken Convulſion. *One leſs than another*, becauſe it argues the faculty governing the ſame to be extinguiſhed. Having *Lead-colored* and *Black* veins, becauſe they argue plenty of bad humors aſcending to the Brain, and that the native heat is extinguiſhed. *With the White turn'd Red*, becauſe they ſignifie plenty of fervent blood in the membranes, or their being inflamed. *Shedding unvoluntary tears*, becauſe they argue undoubted weakneſs of the retentive faculty. *Which do not ſhut cloſe*, becauſe it happens either through Convulſion of the eyes Muſcles, or becauſe the faculty is ſo weak, that it cannot

not perfectly mannage the Eye lids. 3. The *Teeth*, if they grind, not being accustomed so to do, because they signifie Madnes, or death, if they are clammed with a glutinous Humor. 4. The *Nose*, if distorted, for it argues convulsion. *Sharp*, because it argues great weakness of nature. *Itching unacustomarily*, unless it foretel bleeding to follow, because it portends the patient wil rue, by reason of store of humors and vapors ascending to the Head. 4. *Eares lead coloured, black, contracted, cold*, because they are tokens of the native heate extinguished. 5. The *Tongue dry, hard, black*, if it appeare so with other signs, and the patient thirst not, because it argues, either distraction, or extinction of the Faculty, and consequently death. 6. The *Hypochondria inflamed* or *pained*, stretched, unequal, extenuated, because they signifie, either exceeding dryness, or wind, or Inflamation of some part there seated. *Pulsing*, which signifie either the head inflamed, or much wind riseing, from a boiling humor into the head; foreshow perturbation, and with unstable Eyes, Distraction; unless this pulsing presage the Crisis. 7. *Nailes* lead-coloured and black, if the Body be withal heavy for tis a deadly signe. But if the Patient be lightsom, and there be some other good signe, the disease tends to an Impostume or Riseing.

III. *The knowledg of the Manner how a disease wil terminate*, respects what ever we have already said, touching the crisis, and involves many questions. For the queries wil be, 1. Whether the disease shal end in a Marasmus or utter consumption. 2. Or by solution? 3. Or by crisis? and if so. 4. Whether the Crisis wil be by excretion? and if so, by what and what manner of excretion? 5. Or by Translation? 6. Whether the Crisis be very good? indifferent? or bad? 7. When the Crisis shal happen?

I. *Touching the knowledg of a Diseases Termination by Marasmus or solution*, I need not say much. For if the disease out last the critical daies, and those of acute diseases per *decidentiam*, it wil terminate either by solution or Marasmus.

II. By Crisis a disease wil terminate, 1. If it be great and accute, or seem smal, malignity lurking therein. 2. If it arise from matter hot, thin and sharp, which is apt to provoke nature; howbeit in a long disease some critical evacuation may likewise happen, if the disease for some fits preceding have been more vehement than ordinary. 3. If the strength of Nature be so rigorous as to overcome the disease. 4. If perturbations happen in the body, in reference to the animal, vital and natural actions.

III. A disease wil terminate by excretion. 1. If it be acute, from a thin and sharp matter, and the Crisis be expected at the beginning. 2. If Nature be strong, the pulse high, the waies open, and nature accustomed to sweat or other evacuation. 3. If it be summer. II. If it ought to terminate by bleeding at the Nose. 1. The Hypochondria are distended without paine, which is followed by shortness of breath not long-lasting, 2. There wil soone follow paine of the Head and Neck, redness of the face and eyes, shineing and darkness before the eyes, apparitions are seen, There is raveing, pulseing of the Arteries in the temples, also the pulse in the wrists is vehement. 3. Lastly, when the Nose-bleeding is at hand, the patient begins to rub and scratch his nose: all which signs are more certaine, if the Age and Nature of the patient, and the present constitution of the aire be suitable. III. *If by vomiting*, the humors wil move towards the stomach; whence wil follow, paines therein, with headach, dizzines and darkness of the sight, the upper lip wil be ful of motion, they spit much and thin, there wil be stomach sickness, shakings, coldness of the Hypochondria, hardness of the pulse, & an unequal difficulty in breathing. IV. *If by sweat* which is most usual, there goes before, suppression of urine, shaking, and the absence of the signs of other evacuations, when the sweat breakes forth, the pulse wil be soft & waveing, the skin soft, the external parts wil wax hot, and an hot vapor wil break forth. V. *If by stool*, there wil be no proper signe, but the signs of other excretions wil be absent; there wil be belchings and Inflation of the Belly, paine of the Loins, Heavyness of the knees, sometimes the belly being loose, the urine is suppressed. VI. *If by urine*, the signs of other excretions wil be absent, the patient wil not be very unquiet. About the Bladder there wil be sence of inflation, and heavyness of the Hypochondria. The urines wil begin to be encreased. The Belly wil be bound, with a kind of heat. VII. *If by Hemorrhoides*, then the Patient hath been accustomed to them, the signs of other Excretions wil be absent; there wil be heat or paine about the Back-bone, with tension of the Loines; Crises are seldom made by them. VIII. *If by the Courses*, the signs of other excretions wil be absent

absent, the time of their flux, wil be neare. There wil be heat of the Loines, with paine and stretching of the Hypochondrias, and other signs foregoing the flux of Courses. IX. *If by many places*, We shal observe the signs of many excretions. X. *The excretion wil be good*, 1. If the peccant humor be voided, and that digested. 2. If in just quantity and on a critical day. 3. If in a right manner, altogether, and by fitting places.

IV. A disease wil *be terminated by Translation or a Rising.* 1. If it be acute, and the matter chick. 2. If the virtue be weak, and the urines have been long time thin and crude. 3. If Nature have a propensity to those places, the season of the yeare be cold, the patient ancient, and the signs of a Crisis by excretion be wanting. II. The Riseing *happens in the superior parts*, if the matter be thin, in *the inferior*, if it be not so thin, and nature strong. *III.* It *wil be good.* 1. If the matter be digested. 2. If it have a laudable substance and rise high-pointed. 3. If it ripen equally. 4. If it quickly suppurate, and be in an outward and ignoble part.

V. *The Crisis is then best*, when the critical signs forementioned have preceded. If signs of coction and crudity went before. If it were foreshowen in an Indicatory day. If it happens upon a judicatory day. If such matter has been voided as is suitable to the nature of the disease. If the patient after the Crisis, be freed from the disease and its symptomes. It is *indifferent*, if exquisite signs of coction have not preceded; if it happen in the augment or a little before the state, or at least when coction begins to be celebrated; in which case, bleeding at Nose, is the most convenient of all excretions, if it be not foreshowen on the Indicatory day, if it happen in the leape-day, if the evacuation suit not with the nature of the disease, if the patient beare it not wel. *It is bad*, if it happen before the state, nature being provoked, by malignity or plenty of matter, if it were foreshewen to be such, in the Indicatory day; howbeit, many times it comes suddenly, if other things are present contrary to the best kind of Crisis. Where observe. 1. Oft times in a bad Crisis, the patient seems to be better, yet presently after he fals into a bad condition, because the signs of amendment, were not wel grounded. 2. Somtimes in deadly sicknesses, the patient being strong, for one bad and simply deadly Crisis, many evil imperfect ones happen, in which unstable rudiments of Coction appeare, before the patient come to die. 3. The Prognostications of the Crisis, in reference to death are unstable.

VI. *The times of the future Crisis are known*, 1. *By the signs of Coction and crudity*, which must necessarily appeare, upon some Indicatory or decretory day. The crisis wil happen upon the fourth day, If a signe therof appear on the first day; or on the seventh day, if the signe be on the fourth. 2. By such signs *as the idea, magnitude and manners of the disease afford*: of which we spake before. 3 *By the signs of the times of diseases*, for a perfect Crisis happens not before the state, but the imperfect Crisis does: the deadly crisis happens also in the beginning, or augment. 4. By the critical signs, which you had before.

Title, II. *Of The Causes of Diseases.*

Chap. 1. *Of the internal Causes in general.*

ANother preternatural disorder which afflicts the Body of man, is the cause of a disease; and that is external or Internal. But seeing the latter is an effect of the former, or rather does therewith much conduce to produce the disease, I shal therefore only define the internal.

The internal Cause of a disease is that, which being bred and inherent in the Body of Man, does preternaturally affect the same.

Touching which we are to consider its *signs*, *Causes*, and Differences.

I. The signs of causes are taken in general. 1 From their proper tokens, viz. taste, colour, and motion. 2. From a concourse of common signs, which are taken from the Antecedents and Consequents, or evident causes, and from the dispositions of the Body and Symptomes.

II. The Causes of the internal Cause are the things nonnatural, Aire, Meate, Drink, Motion and Rest, Sleepe and watching, Things voided and retained, and Passions of the mind, as far forth as they have power to disorder the Body. And to that end, time is requisite, as also proportion between the agent and patient, Fitness of the Body and Contact.

III. *As for their differences*, the internal Causes are reduced to the *Humors*, *Winds*, and things *totally besides nature*.

Chap. 2. *Of the Internal Causes of Diseases in special.*

Article, I. *Touching Humors.*

Point, 1. *Concerning Humors offending in Quantity, or a Plethora so called.*

THe first kind of internal Causes are the Humors: and they are wont to offend in *Quantity, Quality, Motion, Place,* and in their *whole substance*: *Humors offending in Quantity are termed Plethora, which is nothing else but a superabundance of Humors fit to nourish the Body, which arise from their Causes.* Humors nourishing the body of man are contained in the mass of blood, viz. *Blood, Cholor, Flegm, and Melancholly.* These being turned into the substance called cambium, do nourish such parts as are of kin to themselves and communicate to them as much health as themselves are Masters of. The *signs* of Plethora are, wearyness; because the blood not being ventilated settles into the lower parts. Thick breathing after very smal Labor, the Muscles of the Chest being laden with blood. Swelling of the veins, Distension of the Muscles, carnosity of the Bodies habit, Deep sleeps, ruddyness of the face, &c.

The *Causes* are, good nourishment which affords good juice. The Liver hot and moist which makes it. Idleness, evacuations stopt, cutting off of some member. Use of unwonted bathings after meate.

The *Differences* are, I. One is *Exquisite*, when either al the Humors are encreased, keeping their due proportion and equality, viz, so that the blood be in a double proportion to flegm, and flegm double to cholor; or only blood alone; or two or three of the rest exceed, blood also not keeping its proportion. 'Tis *knowen* by the signs forementioned. It arises also from the causes aforesaid. Another is *bastard* when plenty of bad juices, is joined with abundance of the natural humors. 'Tis *known* by the signs of a Plethora, joined with those of a cacochimia, and it arises from the causes of both. II. One is termed *ad vasa*, or in respect of the vessels; which does not oppress the strength, because it increases equally with the flesh & blood; but it distends the coates of the vessels by its plenty, to which the things aforesaid agree. Another *ad visis*, when the Humors so encrease, that they cannot be governed nor digested by the feeble strength of the Patient. 'Tis knowen hereby, that the blood is not very good, there is heavines and Inequality of the pulse, with signs of crudity, and putrefaction beginning.

Point, 2. *Of Humors offending in Quality, or Cacochymia so called.*

Cacochymia is the presence of il humors in the Body of Man, springing from their Causes.

Its *Subject* is the Body of Man, 1 Both in respect of the Veins, Arteries and Nerves; as also of things without, 2. Also in respect of *the Region of the Belly*, which includes the stomach, mesaraick veins, hollow-part of the liver, the spleen, and sweetbread. 3. And of the *Venous region* which containes the convex part of the Liver, with the vena cava, the greater Artery, and al their branches between the Armpits and the Groines. Also the Habit of the body, wch includes the muscles, membranes Bones, in a word, the whol bulk of the body.

The *signs* are to be fetcht from the differences, which follow. Hereunto pertains, the motion of certaine daies, which is neither critick, nor symptomatick, but natural, which is measured by certain daies and hours, and is so punctual, that it may contend with the Clocks.

The *Causes*, the six non natural things, of which we spake before.

'Tis varriously *dvided.*

I. One sort is from *Cholor*, which is a preternatural humor hot and drie: preternatural I say, because it is distinguished, both from the more hot part of the Mass of Blood, which is bred of the hotter and thinner part of chyle; as also from natural excrementitious cholor, which is collected in the Gal-bladder, and colours the dung. 'Tis *knowen* by the amplitude of the veins, by reason of Heat enwidening the same; by depravation of the concoction, through superfluity of heate, desire of drink more then of meat, vehement pulse, sleep little or none, leane habit, yellow colour of the Body, by its motion from third day to third day, and that about noon. It *arises* from an hot and dry constitution of body, youths age, watchings, anger, overgreat exercise of the Body; meates hot and dry, fat and sweet. *'Tis divided.* 1. Into *Vitelline* resembling the yolke of an Egg, which springs from yellow chollor adust, and is thick by reason that the wheyish part is consumed by heat; is sometimes voided by healthy persons, turns to black chollor, if it be burned, 2. Into that which is termed *porracea*, or *Leeke coloured*, which is bred for the most part in the stomach, of herbs apt to corrupt, through crudity, and oftimes in the veines, of vitelline choler. 3. Into *Æruginous* or verdigreise color'd

choler

choler, which by a most intense Heat is bred, in the Liver, Veins and stomach. 4. *Isatidea*, or woad-colored choler, which resembles woad, being bred of the former, more adust.

II. *Another from Flegm*, which is a preternatural Humor cold and moist. I call it preternatural, to distinguish it, both from the colder part of the mass of blood; as also from that flegm wherewith the stomach, Guts, Lungs, Limbs and Brain are plastered. 'Tis *known* by the softness & whitness of the body, and by crudeness of the stools. By Urine, Crude, White, sometimes thin, and sometimes thick, by appetite of more than can be digested, by its daily motion, and that towards the Evening. It *arises* from meats Crude and cold, unseasonable drinking, and cold distemper of the bowels. From retaining of Excrements, by idleness, long sleep, &c. 'Tis *divided*. 1. Into *Insipid* or *Tastless*, which follows crudity in the stomach, through want of digestion, and makes the body of a leaden color. 2. *Acid*, which is of the same nature with the former. 3. *Salt*, which arises from salt and wheyish moisture, consists of parts both hot and cold; causes thirst, salt tasts in the mouth, and gnawings. 4. *Vitrea*, like glass, in substance and color, it is extream cold and very clammy, and raises most cruel gripeings, when it is detained in the Body.

III. *Another is from Melancholy*, which is a preternatural Humor cold and dry. I say, *preternatural*, to difference it, both from the colder and dryer part of the blood, which is produced in the Spleen out of the colder and dryer part of Chyle, drawn by the *Ramus Splenicus* of *Vena porta*, before it enters into the Liver, to nourish the Spleen and grosser parts: as also from the natural excrementious sort, which because it can by no means be turned into Aliment, it is cast out of the Spleen, partly by the Hemorrhoid veins, partly by the splenick Arteries; sometimes comes as far as the stomach &c. 'Tis *known* by the Leaden color, and blacknes of the Urine, Suppression of the Hemorhoids, flatulency and belching, overgreat appetite, sadness, silentness, troublesome dreams, leanness of the Body, hardness and leaden color thereof, and its motion from four to four about midnight. It *arises* from meats of thick juice, Beef, Coleworts, Fish, upon which a drying, not burning heat does work. From Air cold and dry, consuming the thinner parts, especially if an hot and dry Summer went before, by suppression of the Hemorrhoides, or other melancholick evacuations, &c. 'Tis *divided* into *dilate*, or *thin*, which is known by abundance of Urine, and sweating anights. *Thick*, which is known by the obstructions of melancholick people, & *Black choler*, which arises from heat burning the blood, choler, or melancholy juice. And it is sometimes sharp, sometimes tastless, sometimes so austeer and harsh, as to dissolve the flesh and being poured upon the ground, to make the Earth ferment and work.

IV. Another *from a serous Humor*, which is nothing but a thin and salt watry Humor, affecting the body by its plenty and quality. 'Tis *known*, by plenty of Urine and sweat, sometimes by a wandring pain, because in regard of its thinness 'tis easily carried up and down, and it easily grows hot, by an extraneous Heat. By the sudden going away and coming again of diseases, sometimes by swelling of the Belly, &c. It *arises* from meats moist and watry, also from good meats, and in persons recovering from sickness, by reason of the wasting and languishing of the stomachs Heat. By detention of serositness, by reason of the expulsive faculties weakness, through obstruction of the other bowels, or constriction of the pores through external cold, fault of the spleen, &c. To this Humor only of all others there is sometimes joyned a *Colliquation* or melting of the bodies substance, which happens either in Famin, through wasting of the natural Heat, and turning the radical moisture and flesh into a vaporous humidity: or in case of bad diet, when the aliment not being suitable nor familiar to the body, is not assimilated into the substance thereof, whence the former Colliquation follows. 'Tis *divided* into that which is *mild*, which is nothing but the thinner part of the blood: and *sharp*, which has attain'd its saltness from adustion.

Point. 3. *Of Humors offending, in their Motion, Place, and whole Substance.*

I. *Humors offending in Motion, are the very same, forasmuch as they flow into the parts, either by means of Attraction or Transmission.* Those parts are either *the weaker*, and ordained for no remarkable action, either by *Nature*, as the loose, soft and thin woven; or through some tickly constitution; or *the more liable*, which have some connexion with the part sending, and wales

wide

wide and large by which they receive the Humors, or lie under the sending part. The Cause of the Motion is. 1. *Attraction*, through heat caused from without, or through pain. For the pained part, grows hot by plenty of spirits sent to it, Nature endeavouring to drive away the Cause of the pain, fils the pain'd part with blood and spirits; finally pain weakens the part, and makes it most fit to receive the Humors. 2. *Transmission*, either from the whol body, or the venous tribe, or from some parts, namely when their expulsive faculty is strong, the waies open, and the matter plentiful. Yet it somtimes notwithstandind happens, that the Humors being accumulated in their vessels, begin of their own accord to be moved, and rush violently into some one part, according to the nature of its scituation and conveniency of Vessels. Now those Humors are most of al moved, which are most thin and sharp, as the cholerik.

II. *Humors offending in place, are the Humors aforesaid, when they are where they ought not to be.* The *Causes* are. 1. *Influx*, either by attraction or Transmission. 2. *Congestion*, which happens either by fault of the part, inasmuch as its coctive or epxulsive faculties do not their duties: or through fault of the Nutriment, when it is vitious; and such, as to cause such great quantity of Excrements: or when gross matter is produced, which resists the expulsive faculty.

III. *Humors offending by their whol substance, are those, which having gained within the body a peculiar corruption, they do after an hidden manner, and by their whol substance affect the same.* Understand both preternatural excrementitious Humors, and natural excrementitious Humors retained, as seed, clotters of blood, menstruous blood. The *Signs* are, the sudden invasion of malignant symptomes, as Raving, Fainting away, &c. The Idea of Diseases themselves, &c. The *Cause* is, both *alimentary matter*, which has in it the seeds of that corruption, and while tis mixed with others, hurts not, but being separated from them, and existing by it self, it becomes poyson. We verily feed upon many things, that are fed with poyson. To which ad *Heat*, joyned with the principal Agent, & the Matter, to which may be joined a disposition of the Body hereditary or acquired. Particular Influx of the Heavens, the Air receiveing the Astral Influxes, and terrestrial Exhalations. Contagion, Poyson. Finally, the Imagination and Affections of Passions. Now the foresaid determinate *Corruption*, is brought to this degree, oftimes by long Digestion and Fermentation: whence it is that the Plague does not range up & down every yeer, although every year the Humors are many waies faulty, yea, and it often plaies its pranks without any putrefaction, as in plants and Animals, venoms are bred without Putrefaction; and in the most dry Air, pestulential venom is bred, in which there appear no signs of putrefaction.

Article. II. *Of Winds.*

Flatus or *Wind, is a plentiful vaporous Spirit, raised in mans Body by a weak Heat, out of meat and drink and a clammie humor.*

The *Subject* is the body of Live-wights, but chiefly the stomach and Guts.

The *Signs* are, stretching with heavines, wandring pains, the foregoeing of the Causes that breed wind. The disease caused thereby, rises on a suddain. The Urines are ful of bubles on the top.

The *Causes* are. 1. Meat, much and moist, which can of it self hardly be digested; and somtimes it is in its own nature windie, as are fruits which wil not keep, windy roots, great Sea fishes, al fat things, & such as are sweer, clammy, &c. 2. A crude Humor, and which is clammy. 3. Weak heat, not able to digest the matter, whether it be weak of it self, or in comparision of the matter on which it works.

'Tis *divided* into *flegmatick* wind, which is slowly moved and lasts long. *Cholerick*, which is biting, sharp, and quickly vanishes. *Melancholick*, which is fixed, and causes sadnes. And *Sanguine*, which is mild, and is offensive more by its Quantity than Quality.

Article. III. *Of things totally against Nature.*

Things totally against Nature are *Stones* and *Wormes*.

I. *The Calculus or Stone is a solid & strong substance bred in the Body of Man out of a slimy tartareous mucilage, impregnated with a putrifying faculty, by the Assistance of Heat.*

Its *Subject* is the Body of Man, and therein the Brain, Liver, Gall-bladder, Stomach, Kidneys, Piss-bladder, &c.

The *Signs* are suplied from the parts themselves. There is in a manner nothing to be said of them in general.

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The *Cause* is not *flegm*. For many are troubled with flegm that are not molested with the stone; and many have the stone, who keep an accurate diet; but a *putrefying* or *stone-making juice*. Hence it is, that persons subject to the stone, make water like snivel, which afterwards turns to a stone. Now it proceeds from the dreggyness of meats, which being retained, it glews to this or that part, is daily encreased by arival of new matter, when it laies hold of a clammy, thick, and earthy matter, it coagulates the same, and the internal salt of Mans body coming afterward, which the foresaid tartar by reason of its natural clamminess easily receives, and hides within it self, at last is congealed into a perfect stone.

II. *Wormes are little live creeping things, bred in the Body of man, of a thick, clammy excrementitious humor, containing in it self a kind of vital Principle; by a quickning heat, raised by putrefaction.*

Their *Subject* is the body of man, and therein the Brain, Liver, Stomack, &c. The *Cause* is. 1. An Humor furnished with a kind of vital principle, so that of several Humors several sorts of wormes are bred; and the humor is somtimes thick and roaping, somtimes bitter, so that wormes wil be bred of wormwood and sea salt. 2. Heat, not celestial but bred in the body; and that moist but not alone. This by little and little resolves the humor, and stirs up the spiritual heat, and principal of life which lay hid in the matter.

Title *III.* *Of Symptomes.*

A Symptome is an Affection besides Nature, in those things which belong not to that Constitution which is necessary to the action of the Parts, and which follows some other thing besides nature.

The SIGNES of the Symptomes are discovered by one or more of the senses; and in case they are hid, they are drawn from the same fountains, with the signs of Diseases and causes, that is to say, from the Effects and Causes.

The CAUSES from which they arise, are Diseases, Causes and their Symptomes.

This divided three manner of waies especially.

I. One is of the *Disease*, which immediatly follows the disease, no affection according to Nature, intervening. Another of the *Cause* when the Action is hurt, by some morbifick Cause. A third of a *Symptome*, when one Symptome depends upon another Symptome foregoing.

II. One is an *Action Hurt*, whether it be abolished, diminished, depraved or augmented. It *happens* either by fault of faculty, when the instrument is immediatly ill affected; to which the absence of the spirits and influent heat, is referred; or by *reason of some external Error*, when those things faile, with which the actions are, or without which they cannot be performed. Another is of *things voided* and *retained*: Another of *qualities changed*, which depend upon the Actions hurt and *the Humors* proceeding therefrom.

III. Another is of *the Natural Faculty*, viz. The nutritive, augmentative & generative. Another of the *vital faculty*. Another of the *Animal faculty*, to which appertaine the Symptoms of the *external sences*, of the internal senses, the motive faculty &c.

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THE THIRD BOOK OF THE IDEA OF PRACTICAL PHYSICK.

Touching Medicaments.

Title, I. *Of Medicaments in General.*

HAving already spoke of the preternatural disorders which afflict the Body of Man, it followes that we should now speak somwhat of *their Removal.* Now touching their removal, two things are considerable, 1. *By what Meanes they may be removed.* 2. *How and in what manner they ought to be removed.* The Meanes are termed *Medicaments*, which are considered either in *general* or in *special*, and according to their differences. *A Medicament in General, is whatever being applied to a Sick Body, is of Ability, by its faculties, to reduce the same from a Preternatural, to its natural state and condition.*

Concerning which, five things are considerable. The *Name, Faculties, Dose*, Adulteration, *Substitution* and *Collection.*

I. If we consider the Name, you must know that we understand not the word Medicament in the most common acceptation, for so it comprehends poisons and paintings or Fucuses; but in reference to mans body, and that either generally considered, forasmuch as it neither nourishes nor destroyes the same; or specially, forasmuch, as it is troubled with sicknes.

II. *The faculties of Medicaments* are, 1. Manifest and either the first, Heating, Cooling, Drying, Moistening, which are sometimes compounded; or the second, which arise from the first, and vary in divers respects, so that they are certaine Modes thereof, as, Attenuateing, Abstersive, Deobstructive, Rarefactive, Discussive, thickning, astringent, repelling, stupifying &c. 2. Hidden, in respect of which, Medicaments do either by a peculiar faculty evacuate some particular humor; or they have some peculiar affinity with some member; or they resist poison. *Observe, 1. Touching their faculties in General.* 1. That they spring from their forms, and the formes act by them as by Instruments, and therefore the faculties as they are referred to the Actions,

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are termed certain effective causes, by mediation of which the formes act upon a determinate Body. 2. That they are either actually in the subject, so as presently to operate, as burning is in fire. Or potentially, when the medicant needs the Heate of the body to bring it into act, which is done sooner or later, either in respect of the matter resisting, and the Heat acting, or in respect of impediments of the matter, whereby its actions are bound up. 3. Or they operate by accident, some other thing intervening, as cold water stirs up Heat in the Convulsion; or of your selves, and immediately. II. *Concering the first faculties.* 1. That sometimes they are equally in one and the same subject, so that either they are al equal, or two equal, and one unequal. 2. That the Inequalities which are, do more or less depart from Temper. Those of the *first degree*, do alter a temperate body so, as the alteration is hardly discerned. Those of the *second* degree make evident alteration, but without hurt. Those of the *third* degree, alter vehemently and not without some hurt. Those of the *fourth*, with evident Hurt. 3. That moisture, which of al qualities is least active, cannot be of the fourth degree. 4. Things vehemently hot, do never moisten. 5. Nothing dries in the fourth degree, but it likwise burns; in the third degree many do, which are cold and astringent. III. *Touching occult Qualities*, that they depend upon hidden properties springing from the former. Now the soule as being Architectrix of her own House, produces this inferior Forme, to be as it were her subject matter in a wel disposed body, which though it informe its whol matter, yet it cheifly resides in the radical moisture, implanted spirit, and inbred Heat, which is even in dead bodies, and it may therewith be separated from the rest of the gross body, and may rightly be termed a fift Essence. IV. Touching their knowledg. The *first* are knowen by reason and experience, the former of which is taken from the swiftness or slowness of the action, respect being had to the patient, from smels, tasts, colours, tangible qualities, age, place of production, operations and knowen vertues. The *second* qualities, the first being known, cannot remaine hid, as being their Handmaids. *Hidden qualities* are cheifly conjectured from similitudes or signatures, of which see *Porta* in his Phylognomonicks, and *Crollius* touching signatures.

III. The *Dose* is requisite in a medicament, for none works aright, unless given in just quantity. This is determinated with regard to the quality, part affected, and the sick Patient. Fit measured by us, with a graine, a scruple, a dram, an ounce, a pound, a spooneful, &c. By the ancients with a mystrum, a cyathus, an Acetable, a quartarie, an hemina, or cotyla, a sextorie, a congius, an urna, amphora and culeus.

IV. *Adulteration*, has chiefly place in outlandish drugs, as *Champhire* brought from Borneum, is adulterated with fragments of stones or a certaine gum called chambderros, like crude ambar, or the dust of a certaine wood. So *Bezar-stone* is many waies counterfeted. Mosch is mixed with a certaine stuf made of Goats blood, bread toasted and poudered, and the gum Ladanum. *Amber-Greese* is made up of the pouder of Lignum Aloes. *Cinnamon* is counterfeted, by barks of Tamariske steeped in Cinnamon water and then dried. *Benzoin or Benjamin*, by a mixture of Rosin, olibanum, and a little storax. *Opobalsamum* with Oile of Liquid ambar. *Opium* with Meconium.

V. The occasion of *substitution*, or useing Quid pro quo, is the want of some simples. So *Calamus aromaticus* is used in stead of acorus; Southernwood in place of wormwood; origanum for Southernwood; Hypocists for Acacia; an apple for Acanthus; Anise for Ammi; Acorus for Amomum; peach kernels for bitter almonds; sublimate for Arsenik; Schenant for Calmus Aromaticus; Cyperus for Cardamomes; Vulgar Canella for Cinnamon; Figs of Marsellus for Dates; Sage for Dictamus; Elaterium for white Hellebore; Lapis Lazulie for black Hellebore; Erysimum for Rocket; Poppine for Mandrake; Schenant for Syrian Nard; Cloves for Nutmegs; Lovage roote for xylobalsamum &c. of which see Authors, especially *Renodeus* in the fourth Book of his Pharmacopeia, Chap. 16

Title, II. *Of the sorts of Medicaments and their Differences.*

Chap. I. *Of simple Medicaments.*

Article, 1. *Of such Medicaments as are dug out of the Earth.*

MEdicaments *considered in their sorts are variously divided: howbeit the cheif differences are those which are taken from their constitution, qualities, and virtues, the parts of mans Body, the Planets and Signs of the Zodiack, to which Magical medicaments may be added.*

In respect of their Constitution, Medicaments are Simple or Compound. I cal those Simple, which are such as nature has produced, having received no composition by art, but go into the composition of artificial medicaments: and they are Fossilia, Vegetabilia, Animalia, or Microsmica. *Fossilia,* are such medicaments as are fetcht out of the Bowels of the Earth. Under this kind are contained, I. Earths, which wil dissolve when water is poured upon them, such as. 1. *Argilla,* potters clay, of very little, though some use in physick. 2. *Chalke,* useful in want of appetite. *Terra Lemnia,* of a red color and fat, so that held in the mouth it seemes to be made of suet. 4. *Bole Armeniack,* or oriental Bole, which is counted best, if it wil presently rub in a mortar to very fine pouder, and has no grittyness or sandiness in it. Red bole is the vulgar Bole of the Shops, 5. *Cimolia,* either the white or that enclineing to purple; being fat, and cold to feele to, it is best. 6. *Terra* Silesiaca, or strigensis, which *Montanus* found out.

II. *Concrete or congealed juices,* such as 1. *Salt,* whether it be Sal gem, or Sea Salt; the former of which is dug out of Mines, and being thrown into the fire, it does not crackle, but takes flame. 2. *Nitre,* as wel that of Dioscorides, of a rosie or white color, as the vulgar Sal Nitre or Salt peter so cald; the froath which by long boileing it sends forth, is termed Aphronitrum. 3. *Allum,* especially roche or rock allum. For the Alumen scissile, or leader alum, which is not sensible of the force of fire, and *Catinum* made of the ashes of the plant Kali, are not in use. 'Tis called stipterion. 4. *Vitriol* or *Chalcantum,* which is nothing else than a Coagulum of sulfurous, brazen or iron saltness. Se thereof Verbezius and Billichius in the first book of Chymical observations, Chap. 13. The white and native is counted best; when burnt, tis termed Colcothar. 5. *Sulfur,* which if it be natural, it is shineing and transparent like a Glowworme, of a light ash color without, and yellow within: if made by Art, it is very fat and greenish.

III. The several sorts of *Bitumen,* such as 1. *Haphtha,* strainings of Babylonian Bitumen, fluid, white, extreamly apt to take fire. 2. *Petroleum,* as if you should say, oile out of a rock, which is gathered in the country about Modena in Lombardy. 3. *Spermaceti,* or a whiteish ambar, the Creame of the Sea. 'Tis collected in the Sea, being a fatty and branny foam thereof. Choose that which is white, fat, &c. 4. *Ambar-greise,* which is cast out of the Channels of the Sea upon the shoare, & growes hard by lying in the Aire. The best is of an Ash-color most fragrant, which being prickt with a pin, sweates out much fat moisture. That which is made by Art is commonly black, and put in water, grows quickly soft. 5. *Succinum* or amber, called citrine or yellow amber, Electrum, Carabe, is found in shallow parts of the Sea, and on the shoares thereof. The white is lighter, fragranter, and better; the yellow, is also good, if transparent, and if being rubbed it smel like Rosemary. See thereof *Libavius.* 6. *Gagates,* jeat, is black, crustie, and ful of Bitumen; if set on fire, it flames, smells like bitumen, and so it is distinguished from pit coales.

IV. *Stones,* such as are. I. Among the *more precious* sort. 1. The *Smaragd,* of which the Scytian is best, being of one color, and that a light Green. 2. The *Sapphyr,* which if it be of an azure color is best; if of a watrie color, 'tis of smal esteem. 'Tis found in Zeilan, Calcut and Pegu. 3. The *Rubine;* of which there are four kinds. The true and best sort, is of the color of Indian Lac or Scarler, the slightest are the Balassius and Spinellus. 4. The *granate,* which is best if it have the color of a march violet, mingled with the red. 5. *Sardius,* which is commonly found at Sardis, and thence has its name; is most approved, when reddest. 6. *Hematites*

tes or *Bloodstone*, greenish, party color'd, sprinkled over with bloody spots. 7. The *Nephrithick stone*, dark, party color'd, mingled of green and other colors, its surface seems alwaies fat. 8. The *Chrysolite*, which is either Oriental, or Europæan. The former is soft, and has a golden color, with more or less blackness. 9. *Chrystallus*, which is then best when most transparent. 10. The *Hyacinth*, which is the better for being but one only color, The worst is the Arabian. II. Among the less precious sort are. 1. *Lapis lazuli*, which is of a dark azure color, adorned with golden streaks, or specks. 2. *Lapis Armenius*, which is variegated with many green and blew spots, and some blackish ones, the Sky color'd is preferred before the deeper blew. 3. *Lapis judaicus*, roundish, with equi-distant streaks al along, as if so turned by Art. 4. *Lapis Lyncis*, cald also Belemnites, is of a pyramidal shape, and is found of divers colors. 5. *Magnes*, or *Heracleus*, so much the better by how much more Sky color'd and hoary. 6. *Osteocolla*, which is of the shape of a bone, and is also termed *Holosteus*. 7. *Silex*, a flint, a wel known stone. 8. *Talcum*, a stone like the *Lapis Specularis*, but more thin, scaly, greenish, resisting the fire, and fixed; which also some relate of the Osteocolla. 9. *Unicornu fossile*, or a stone which in color and smoothness and frequently in the very shape, resembles an horn. III. Among *those taken out of Living Creatures*. 1. *Coral*, especially the red. That is counted the best which is of a flourishing color, smelling like Sea weeds, branchy, brittle; not the rough scabby and hollow. 2. *Lapis Spongus*, which grows in spunges, being porous, friable, and of a white or gray color. 3. *Alectorius*, or *Cock-stone*, that's most esteemed, which has appearing therein as it were a crum of meat congealed, pretty bright in appearance. 4. *Chelidonius*, the swallow stone, which is Hemisphærical, and alwaies hollow within. 5. The *Carpie* stone, which is triangular, and is found about the beginning of the dorsal Marrow. 6. *Crabs eyes*, a thing wel known. 7. *Umbilicus marinus*, which is found in the Orifice of a snail, when it shuts it self up in the winter. 8. *Lapis Caymanum*, which is taken out of the Bellies of Crocodiles or mighty lizards in *America*. 9. *Lapis porcinus*, Hogstone, which is found in the Gall of Hogs near *Mallacca*. 10. *Perch stone*, found in the fish so called; now there are two found in the said fish, white, oblong, plane, toothed on the one side. 11. *Bezoar stone*, of which kind the Oriental are praised, the Persian, such as are blackish green, whose under crust shines, when the uppermost is taken away. The true bezoar is known, in that being rubbed with chalk it becomes of a yellowish green; or being steeped in water three hours, it becomes no heavier than it was before. 12. *Ætites*, Eagle stone, which is said to be carried by the Eagle into her Nest; of which see *Laurembergius*.

IV. *Metals*, which are either *natural*. 1. *Gold*, which the chymists cal *Sol*, the Sun. The best is that of *Arabia*, the next that of *Hungaria*, the next to that the *Rhenish*. 2. *Silver*, which the Chymists term *Luna* and *Cerebrum*, the Moon and Brain. 3. *Tin*, which the Chymists cal *Jupiter*: The purest is found in *England*. 4. *Brass*, or *Copper*, which the Chymists term *Venus*, the best is in *Cyprus*. 5. *Iron*, which the Chymists cal *Mars*: the best is that of *Damascus*, and the *Spanish*. 6. *Lead*, or *Saturne*. 7. *Quicksilver*, or *Mercury*, the Idol of Chymists, which comes out in drops from the Clods of many Mines. To these ad *Stibium* or *Antimonium*, the Cure and torment of the Hermeticks, which was of old, sold as it was dug up, but now it is tryed first. II. Or *Artificial*, as are. 1. *Scoria*, or the dross which comes when the Oar is tryed in the furnace. 2. *Cadmia fornacum*, viz. That which cleaves to the roof of the Furnaces when the oar of metals is tryed. The best is, that which is afforded by the furnaces of *Cyprus*. 3. *Pomphodix Nihili*, or Tutia; which is a volatil spark which flows from melted Brass. The best is the white and smooth, that of *Cyprus* is most commended. 4. *Spodium*, understand that of the Greeks, and not of the Arabians; and it is nothing but a clot of sparkles or ashes which fly in the melting of brass, and quickly fal to the ground. 5. *Flos æris*, to which ad verdigrease and the scales of brass. 6. *Cerus*, which is drawn out of lead, with the help of vineger. The most esteemed is that of *Rhodes* and of *Puteolum*. 7. *Cinnabaris*, which comes from the Shops of the Quicksilver Men. 8. *Literidge*, or the thinner dross of silver purged from the plumbaginous matter, which is blown out by blast of the Bellows.

Article, II. *Of Vegitable Medicaments.*

Vegitable Medicaments are, trees, shrubs, and herbs; inasmuch as they serve to remove the disorders of the Body, either in whol or in part, viz. By their roots, woods, barkes,

leaves, tops, flowers, fruits, and humors. 1. Those *Trees* are 1. *Aple-bearers*, as the Apple tree, the Quince tree, the Citron tree, the Orenge tree, the Peach tree, the pear tree, the Fig tree, the Sycomore tree, the Mulbery tree, the Crab tree, the Medlar tree, the Service tree, the Apricock tree, the Malacotone tree, the Damsin tree, Myrobalan-plum tree, the Sebesten tree, the Jujubee tree, the Cornel tree, the Lotus, the Cherry tree, to which we may ad the Ebeny and the Guaiacum trees. II. The *Nut-bearers*, the Almond tree, the Walnut tree, the Hasel tree, the Filberd tree, The Chestnut tree, the Pistachio tree, Glans unguentaria tree, the Styrax tree, to which many outlandish Nuts, must be referred. III. *Date-bearers*, such as the Palme, *IV. Mast-bearers*, as the Beech, the Oake, The Cork, the Suber, the Ilex and Smilax of the Arabians, whereunto also belong Misletoe, Galls and Oake apples. V. *Berrie-bearers*, as the Sanders tree, The Mastick tree, the Frankincense tree, the Terpentine tree, the Balsam tree, the Sumach tree, the Cocconilea, the Ash tree, the Holme tree, the Linden tree, the Wild vine, the Ostrys tree, the Cotton tree the Maple, the Plantane, the Sassafras, the Ricinus, the Barbery tree, the Gooseberry tree, the Elder, the Laurel and bay tree, the Chamelea, the Thymelea, the Cneoron, the Myrtle, the Butchers Broome, the Rasberry tree, the Box tree, the Olive tree, the Agnus castus tree, the Privet; the Primprint, the Philyra, the White bramble, Box thorne, the black berry bush, the Capar tree, the Savine tree, the Cedar tree, the Cypress tree, the Juniper tree, the Asparagus, the Eugh, and Dragon tree. VI. *Spice-bearers*, the Nutmeg tree, the Mace tree, Macer tree, the Cassia lignea or Canella, the Cinnamon tree, the Folium tree, the Clove tree, the Peper tree, the Cubebes tree, the Amomum tree, the Graines of paradice tree, and the Cardamom tree. Hither also may Lignum Aloes tree be referred. *VII. Cod bearers*, as the Cytisus, Anagyris, the Acacia the Aspalathus Genista or Brown, Spartium, Scorpius, Cliothen, Sena, Euonymus Nerion. VIII. *Cone bearers* as the conebearing Ceader, the Pine, the Larch tree, the Pitch tree, the Fir tree. IX *Cotkin or cats taile bearers* as the willow, the Alder, the Elme, which beares also bladders, the Poplar tree. X. Rose bearers, the Rose tree, the Cistus and Cistus Ledum. &c. XI. Brush trees, Tamariske, Heath &c.

II Also *Herbes* are variously divided. For they are. 1. If we regard their *roots*, *Bulbous*, as the Bulbous flower delize, the stock gilloflower, Safron, Colchicum, the Onion, the Leek, the Squil, Garlik, Moly, Orchis or Cullions, and Satyrium or Dogs-stones &c. II. If we consider their *Leaves* they are, 1. *Long leaved and stalked*, as Grass, Rushes, Nardus, Cyperus, Horstaile, the Reed, Papyrus or Egptian paper, Xyris, Orice, Acorus, Galangal, Ginger, Zedoary, Costus, &c. 2. *Thick-leaved* as Houseleek, Venus navel, Aloes, Rhodia, Telephium, Purslane, Cepea Crithmum, Kali, Tragum. 3. *Hairie leaved*, Borrage, Gromwel, Cynoglossum, or Hounds tongue. 4. *Nervy leaved* as Gentian, Plantan, Flea wort, Bistort, Pond weed, Water-lilly, Cucko pintle, Hellebore &c. 5. *Round leaved*, the two Birthworts, Colts foot, Broad dock, Bur dock, Asarum. 6. *Hair like*, as Phyllitis, Hemionitis, Asplenium, Lunaria, Maiden haire, Polytrichum, Wal rue, Ros-solis, Ferne, Polypodie, and others. 7. *Thorny or prickly*, as the Thistle, Scolymus of Theophrastus Venus bason, Eryngos, Euphorbium, Dragant &c. 8. *Three leaved, five leaved &c.* 9. *Soft leaved* as Marsh mallowes, Mercury, Rhubarbe. &c. III. If they beare *flowers* they are. 1. *Turn crowned and helmet fashiond*, as Mints, Calamints, Origanum, Penyroyal, Hyssop, Time, Stechas of Arabia, Lavendar, Vulgar spike, Ground pine, Oake of Jerusalem, Sage, Nettle, Betony, Eye bright, Scrophularia, Prunella, Hedge hyssop, Dictamnus &c. 2. *Star fashioned*, as Rubia, Gallion, Cruciata, Rue. 3. *Spur fashiond or lark heeld*, Aquilegium, Roial Comfrey, Toad flaxe &c. 4. *Button tufted*, as Cumin, Fenel, Dil, pellitory, Fennel-giant, Thapsia, Turpit, Hogs-fennel, Carot, Chervil, Smallage, Angelica, Imperatoria, Laserpitium, Panax, Caraway, Coriander, Anise, Pimpernel, Myrrhis, Hemlock, Lovage, Filipendula. 5. *Berry bunched* Elecampane, Pellitorie, Mugwort, Sneezwort, Wormwood &c. 6. *Headed*, Scabious, Jacea, Cyanus, Scorzonera, Caltha, Succisa, Cardus, &c. IV. If *Fruit*, they are 1. *Apple-bearers*, Mandrake, Cucumber, Melon, Pompion, Anguria, Gourd, Coloquintida, wild or Asscowcumber. 2, *Codded*, as are besides the pulses, and the pot-herby sort, Hedysarum, Ornithopodium, Polygala, Onobrychis, Galega, Glycyrrhize, Fumitory, Celsondine, Aquilegia, Nigella. 3. *Case carriers*, Garden Cresses, Shephards-pouch, Scurvy grass, wild radish &c. 4. *Vessel-bearers*, as Centorie, Mouse eare,

eare, Flax, St. Johns wort, Anagallis, Mony wort, Rupture wort, Poppie &c. V. If we regard their use, they are. 1. *Cornes*, as Wheate, Spelt, Barley, Rie, Oates, Blasted Corne, Rice, Milium, Panicum, Phalaris, Indian Corne. 2. *Kitching hearbs*, as Rapes, smal turneps, Iberis, Taragan, Campanula, Rapistrum, Rocket, Mustard, Alliaria, Cole wort, Docks, and Patientes, Betes, Blites, Centaury the greater, Orach, Pellitorie, Mercurie, Lettice, sowthistle, Cichory &c. 3. *Pulses which are gathered*, as Beanes, French Beanes, Pease, Tares, Fetches, Lentils, Orobus, Cicer, the Lupine, Fenugreek &c. VI. If *the manner of growing*, there are *convolvuli or Scandentes*, such as twist themselves about other plants or props and so reare themselves as are besides apple bearers and the pulses, Scammony, Soldanella, Salsaparilla China, Bryonie, Mechoacan, Hops, the Grape vine, Lilly Convally, Ivy, Indian, Watercresses, Birthwort, Bindweed, Gramen parnassi, Saxifrage &c. VII If *their juice*, some are *milkie plants*, as Tithymallus, Esula, Peplus, Peplis, Lathyries, and Chamasyce &c. VIII. If their *place*, in which they grow, they are 1. *Garden wood*, *Feild*, *Mountaine*, *Meadow and water plants*, as are Moss, Duckweed, Lungwort, Sea nettle, Sea weed, Arsmart, Anagallis, &c. IX. If we regard the *virtues*, we shal find in a manner infinite differences of Hearbs; of which I shal speak hereafter, as much as wil serve for our present purpose; and more largely and exactly, elsewhere,

III. The Humors of plants are best distinguished into *thickned juces*, *Gums*, *Rosins*, *and Pitch*.

I. *Thicked juices* are, 1. *Ammoniacum*, which is named from the Oracle of Jupiter Hammon, tis bred in a tree called Metopion. That is most approved which is sincere and unmixed and condensed into clotters like Frankinsente, smelling somewhat like Castorium, Bitter in tast, yellow without, white within, growing soft if it be wrought between the Fingers. 2. *Galbanum*, the juice of a Ferulous plant which grows in Syria. The best is gristly, yellow, fat, not woody, of a strong ungrateful smel, because it retains in it some of its seeds and sticks. 3. *Opopanax*, a juice flowing out of the root of Hercules his Allheale, That is most esteemed, which is white within, yellow without, bitter, strong scented, fat, milkie like Galbanum, and when it is melted resembling a milkie liquor. 4. *Sagapenum*, or Sera pinum, the liquor of an herbe like fenelgiant growing in Media. Thats best which is sincere, transparent, red without, within when it is broken, yellow, or compact of yellow or whiteish drops, growing soft between the fingers. 5. *Opium*, or a milkie liquor running from the stalke of a black poppie lightly gashed. The best is that which is white, or yellowish like the Haires of a Lions-skin, congealed into a Mass as it were made up of little graines of divers colors, dirty and of a strong and virulent smel. 6. *Aloes*, which is either Caballina, or Hepatica, or Socatrina you must choose that which is fat, void of Stones, friable in winter, soft in summer, compact like the substance of the Liver. 7. *Scammony*, which is reserved of a milkie roote being cut, out of which it runs and is dried. Thats best which is transparant, ful of holes like a spounge, and when it is rubbed against the tongue it shewes a white liquor on its surface, resembling milke. 8. *Elaterium*, or the juice of the wild Cowcumber thickned, which is the most lasting of al medicaments; and that is best which is oldest. 9. *Euphorbium*, or a most sharp biteing juice of a tree, resembling the ferula. That must be chosen which is pure, transpatent, white or yellow, and biteing, and which being lightly toucht with the tongue, inflames the mouth a long time after. 10. *Juice of Lycorize*, which is drawen out of the roots, and is condensed into Balls or little cakes. 11. *Succus Acaciæ*, a juice prest out of Acacia a plant in Egypt. Choose that which is moderately yellow and odoriferous. 12. *Acacia Germanica*, or the juice of boiled sloes, prest out, set in the Sun, and dried. 13. *Manna*, which is gathered in Calabria from the Ashen trees. Choose that which is white and not above a yeare old. 'Tis counterfeted by sugar pemies wrapt up in leaves of herbes. 14. *Gummi Gotte*, or Cambogia, Gummi Gamandra, Gummi de peru, which is extracted out of the Indian Ricinus. See thereof *Reudenius*, *Lotichius*, *and Bontius* in his Medicina Indorum.

II. *Gumms* are, 1. *Gum Arabick*; the best is transparent like Glass, unmixt, in crinkled bits representing wormes, and white. 2. *Gum tragant*, which drops out of the root of thorny plants, which the Greeks cal Tragacantha. 'Tis transparent, white, sweetish, light and sincere. 3. *Sarcocolla*, the teare of a tree growing in Persis, like fine franckincense, yellowish and bitterish. 4. *Gummi Hederæa*, of a yellowish red color, strong smell, and biteing tast. 5. *Cancamum*, or

the

the teare of an Arabian tree, somewhat representing myrrhe, of a very strong tast. 6. *Lacca officinarum*, Gum lac of the shops, is made of the juice of a certaine tree, in Pegu and Malavar. Tis said to be made by the winged Pismires. 7. *Sanguis Draconis*, Dragons blood, or the juice of a certaine tree which being congealed, resembles dryed blood. It makes water of a milkie color, but without mixture. 8. *Assa fetida*, or the Teares of Silpheum growing in Libia and other Countries. Choose that which is unmixt, resembling Garlick in smel, and clammie. 'Tis adulterated by the mixture of meal, bran, and Sagapenum. 9. *Champhire of the shops*, or the Resinous Teare of a certaine high tree. Choose that which is white, transparent as christal, not spotted, fragrant, apt to crumble between the fingers, and which being set on fire, can hardly be quenched. 10. *Juniper Gum*, drie, hard, yellow, like mastich. Liquid Varnish is made of it and Linseed oile. I forbeare to speake of Cherrie tree gum, Elme tree gum, &c.

III. *Rosins* are either moist or *drie*. The moist are. 1. *Terpentine*, or a liquor which flowes from the Trunk and boughes of the tree Terebinthus. The best is white, transparent, enclining to skie color, fragrant and biteing. 2. *Rosin of the Larch tree*, or Terpentine of the shops, which is many times sold for the former. The best is the purest, most fragrant, somwhat transparent, and which falls hastily and equally from the finger dipt into it. 3. *Mastich* which flows from the Lentish tree, and seems referable to the Gum rosins. The best is white, shineing, fragrant, crumbly, and which growes in Chios. 'Tis counterfeited, with a mixiture of franckincense and Rosin. 4. *Olibanum of the shops*, or the liquor of an Arabian tree. The cheise is the male, that which drops out, round, white; the next in value is the Orobium, which growes in Amelum, which is smaller and yellower; the next to that is Amomites, which is white, and yeildes to the fingers when it is softned, like mastich. 5. *Myrrhe*, or the Tear of a tree which growes in Arabia, like the Egyptian thorne, which tree being cut it drops downe upon mats spread beneath. The Troglodytick myrrh is counted best, which is greenish, transparent and biteing; the second in repute is thin and clammie like Bdellium; the third in value is that which is termed Caucalis, black and parched; the worst is the factitious which lookes like Gum. 6. *Storax* or the teare of a tree like a Malocotone growing in Syria. The best is yellow and fat, rosinie, with whiteish drops; which being wrought between the fingers, sends forth an honey-like moisture keeping the fragrancy of the lump. 'Tis adulterated by the dust of a tree which the worms have made by their gnawing. 7. *Liquid Ambar*, or an oily rosin, of a most sweet and strong smel, flowing out of a certaine tree in the west Indies, called Ocosotle. 8. *Bdellium*, or the Teares of a tree in Bactria. That is most approved, which is bitter, transparent, like Bulls-glue, fat within, and easily growing soft. 9. *Benjuinum* or *Benjamin* a gum flowing from the wounded boughes of a certaine tal tree in the East-India's. The best has white spots in it resembling almonds, and grows in Zeilan. 10. *Tacamahaca*, or a Rosin which flowes out of a wounded Tree which growes in Nova Hispania. In color tis like Galbanum, it has white nailes, a strong smel and tast, and sticks fast to the skin. 11. *Gummi Elemi*, or a transparent white teare, with yellow particles intermixt, reduced into a Mass; and rendring a sweet smel when its burnt. 'Tis brought out of Ethiopia. *Dioscorides* describes it yellow somewhat like Scammonie, and biteing. 12. *Colophonia of the shops* is a dried rosin, of an oilie substance, yellowish, drie, and friable, being the remainders of the fir and pitch tree, when they are clarified by the fire, being thickned and hardned by cold. Choose that which is transparent, fragrant, and resembles the smel of franckincense when 'tis burnt.

III. 'Tis needless that I should ad any thing concerning *pitch*; Touching Plants consult the *Theatrum Botanicum of Baubin*, which is now comeing forth: to the more easie knowledg whereof my doctrine of Plants, and other Treatises, which in dispight of envie, I have in hand, shal lead thee.

But the knowledg of the *Vertues of Plants*, depends upon the signatures also, or similitudes, which they seem to have, with the *Parts*, *Humors*, and *Diseases*, whether it happen in shape, which is in this case most considerable, or only in sensible qualities, or in actions and manners &c. Howbeit, these notes are either *Fixed*, which are seen in seeds, Roots and Flowers: or *movable*, which are taken from Tast, Smel, Color, Shape, Hairyness, Smoothness, &c.

1. As for the *Parts of mans* Body, 1. The *Head* is represented by the Poppie, Wal-nut, Indian Nut, Peonie, Squil, Agarick, Lilly convallie.

convallie. 2. The *Eyes*, by the Graines of Herbe Paris, flower of Eye bright, Anthenis, Mary Gold, Hawkweed, Anemone, Scabious,&c. 3. The *Teeth*, by Henbane without cods, ſtones of a pomegrannate, pine kernels, Toothwort, Leaves of Prick-Madam, root of the ſmaller Celandine. 4. The *Eares*, by Aſarum and Garden Scurvigraſs leaves. 5. The *Noſe*, by the leaves of Menaſtrum Aquaticum. 6. The *throat* or *weyand* by Winter-green, Uvularia, Cervicariat and Caſſia Fiſtularis. 7. The *Lungs*, by ſtony lungwort, ſpotted Lungwort, lungwort of the Oak. 8. The *Heart*, by pome-citrons, The roots of Anthora, The anacardine Beanes. 9. The *Liver*, by Liverwort, the toad-ſtoole that growes upon Birch and Oake, the Herbe Lichn. 10. The *Spleen*, by Scolopendrium, Hearts-tongue, Lupines. 11. The *Stomach*, by Bindweed, leaves, Ginger, Galingal. 12. The *guts*, by Bindweed, calamus aromaticus, Caſſia Fiſtularis. 13. The *Navil*, by Umbilicus Veneris. 14. The bladder, by Alkekengi, Bladder wort, Colutea, nightſhade. 15. The *Privites*, by Cuckoes-pintle, Beanes. 16. The *Stones*, by ſeveral ſorts of Orchis, Satyrium, Dracunculus, leekes, Stags pizzle. 17. The *wombe*, by Ariſtolochia rotunda, round birthwort, Mace, Sabine. 18. The *Reines*, by Purſlane. 19. The joints, by Hermodactyls, Sarſa pariglia. 20. The *Hand* by Palma Chriſti. 21. The Haire of the Head, by the Moſs of trees, and Maiden haire.

II. As for what concerns *Humors*. 1. *Cholor yellow*, is repreſented by ſuch plants as have flowers or juices of a yellow or Safron-colour, as Aloe, Senna, Wormwood, Spurge Safron, Colcquintida, Rhubarbe &c. 2. *Leek-colored* Choler, Blites, Orach. 3. *Pale Choler* by Bryonie. 4. *Black-choler*, by ſuch whole flowers, Leaves or juice, are blackiſh purple, or Skie-colored, as Beanes, Lentils, Vetches, Borrage, Bugloſs &c. 5. *Flegm*, by white-flowered plants, as gourds, Lettice &c. 6. *Blood* by ſuch as are of a red color, or ſtaind with a red color, as Red ſanders China root, Fearne root, Sorrel root.

III. *As for Diſeaſes*. 1. The *Stone is* repreſented by Gromwel, white-Saxifrage root, nutſhells and their kernels. 2. *Smal riſings* by Lentiles. 3. *Excreſcences* by Agaric, and Galls. 4. The *Jaundice* by Celoudine, Saffron, Centaurie. 5. The *Polipus*, by the roots of the ſmaller Celondine and polypodie. 6. *Lentigines*, *ſpecks or ſpots*, by the white and ſpeckled barke of the Birch-tree, and the Lichen which growes upon trees. 7. *Morphewes &c.* by Garlick, Cucko-pintle, Ariſarum, Arſmart, Lungwort &c. 8. *Wounds* by Through waxe, Millefolium.

Article, 3 Of *animal Medicaments*.

Animal Medicaments, are ſuch as are taken either from whole liveing Creatures, or ſome parts of them.

All Livewights are conſiderable in a five fold difference, for they are either *birds* or *Four-footed Beaſts*, or *Fiſhes*, or *Creeping things*, or *Bloodleſs-wights*.

I. Of birds, among *thoſe that live on Land* are. 1. *Carnivorous*, that live on Fleſh, The Eagle, the Vulture, the Hawk, the Kite, the Buzzard, the Cucko, the Falcon, Parrot, Crow, Jackdaw, the Chough, the Magpie, the Owle, the Batt, the Oſtrich. II. *Plant feeders*, and they are either. 1. *Scrapers in the duſt*, both wild, as the Peacock, Pheaſant, Heath-cock, Buſtard, Partrich, Quaile, Turkey-cock; and alſo tame, as the Cock and Hen. 2. *Or Scrapers and waſhers both*, as the Dove, Turtle, Pigeon, Sparrow. 3. *Or ſingers*, as the Linnet, Gold-finch, Thiſtle-finch, Thrush, Larke. 4. *Berry-feeders*, as the Black-bird, Feldefare, &c. III. *Inſect-eaters*. 1. That *ſing not*, as the Pidannet, the Titmouſe, the Wood-pecker, the Wren, the ſwallow, the Lapwing, the Muskin, a diſhwaſher, a Redſtart, a Robin-redbreſt. 2. *That ſing*, as the Nightingal. *Of thoſe that live in the water*. 1. *Broad-footed*, 1. *Fiſheaters*, the Pelicane, the Cormorant, the Sea-mew, the plungeon, the Seagul, the Swimmer. 2. *Graſs-eaters*, The Swan, the Goole, the Duck, the Moor-hen. II. *Cloven-footed* 1. *Fleſh-eaters*, the Storke, the Ibis, the Redwing, the Heron, the Porphyrie, the Kings fiſher, the Ispis. 2. *Inſect-eaters*, The Arquata, the Crex, the Totanus, Dab-chick, Scolopax, Tringa, Junco, Cinclus, Vanellus, &c. 3. *Corn-eaters*, as the Crane.

II. *Fiſhes* are, I. *Seafiſh*, and they are 1. *either ſuch as keep in the deepes*, both *ſcaled*, as the Stockfiſh, the Herring the Liparis: the Sea-bore, the Glaucus, the Horſe-tail, and the *Smooth*, as the Tunie, the Pompilus, the Anita, the Sword-fiſh, the Remora, the Conger, the Lamprey: alſo the *griſly*

long-

long-shaped, as the Dogfish of *Aristotle*, the Galeus, the Catulus, the Sea-Weazel, the Star-Fish, the Blew-fish, the Thorn-back, the Sea-Ape, the Zigæna; and the *plain flat sort*, as the Torpedo, the Pastinaca, the Sea-Eagle, the Ray, the Sea-frog, the Sole, the Maid. II. Or such as *delight in stony places*, the scaled, as the Gilthead, the Thrush, the Peacock, the Lepras, the Black-bird, the Phycis, the Sea-Perch, the Channe, the Liver-fish, the Black-tail, the Crow-Fish, Adonis, Sciana, Glaucus, Anthias, Lumpfish, Sphyræna, the Needle-fish, and the Smith-fish. *Smooth*, as the Sea-Lark, and the Pholis. III. Such as haunt the shoar, and they scaly, not flat, as the Mullet, the Swallow, the Cockoo, the Kite, the Harp-fish, the Phagrus, the Red-fish, the Acarnan, Orphus, Dentex, Synagris, Chromis, Gold-fish, Sargus, Sparus, Mormyrus, Cantharus, Salpa, Scorpion, Blennus, Combefish, the Merlan, Anchoves, Atherina, Sarda, Menow, Smaris, and Ox-Eye. *Scaled and flat*, the Sole, the Place, the Flounder. *Smooth, not plain*, Sand Eels, Dragon, Little Dragon, the Stargazer, the Roughtaile, the Makarel, the Lizard, the Saurus, the Crow and the Kite. *Smooth and plain*, the Sparrow and the Rhombus. II. *Sea and River haunters*, and they, 1. *Scaly*, as the Salmon, the Pike, the Bream, the Alosa, Ziga of the River Albis, the Mullet, Goat fish, Sturgeon, and Galeus of Rhodes; 2. *Smooth*, as the Huso, Sperlan, Lamprey, Eele and the Owl fish. III. *River fish*, and they are, 1. *The Scaly sort*, the Trout, Thymallus, Shade, Barble, the Pollard, Dace, Gudgeon, Rough, Millerthumb, Phoxinus, &c. *Smooth*, Attilus of the River Poe, Antacæus of Poristhenes, Ichthyocolla, Glanis, River-Wezel, the Dig-fish, Phoxinus and Salmon. IV. *River and other fresh water fish*, as the great Perch, the Scrollus, Pungitus of Albertus; Alburnus of Ausonius, Epelanus, Pike, Carp, Tench, &c. V. *Pond-fish*, the Umbla, Carp, Pond-Trout, the Lavaret, of Geneva, the Saractus, &c.

III. *Four footed Beasts*, are, 1. *Whol-Hoofs* as the Horse, the Ass, the Mule, Elephant, Zebra & Unicorn. 2. *Clovenfooted*, as the Elk, al kind of Oxen, the Camel, Panther-like Camel, Goat, Hart, Gulligut, Rangifer, Rhinoceros, and Hog. III. *Having divers toes*, which are either such *as bring forth Live-wights*, as the Panther, Tigre, Bear, Wolf, River-Horse, Fox, Ax, Marmoset, Baboon, Badger, Castor, Otter, Pole-Cat, Weazel, Mars, Genetha, Hare, Conny, Squirrel, Dormouse, Mouse, Mole, Hede-Hog, Urchin, Cat and Dog: or, *such as lay Eggs*, whether the Egs be covered with a skin or a shel: as the Frog, Lizard, Eft, Salamander, the spotted Neut, the Scincus, Cordilus, Chamelæon, Crocodile, and al kind Tortoises.

IV. *Creeping things*, or *Serpents*, both footless and footed, greater and lesser, as the Viper, Ammodits, Cerastes, Hemorrhois, Aspe, Dipsas, Scytale, Amphisbæna, Cæcylia, Cenchrus, Acontias, Dryinus, Elope, the snake of Esculapius, Water-Serpent, Boa, Sea-Serpent, Sea-Scolopendra, the Dragon, Basilisk, Dragon of Sythius, the Flying Dragon.

V. *Bloodless wights*, are distinguished in a five-fold manner. I. The *Soft*, as Polypus Sepia, Loligo, Sea-Hare. II. *Crustieas*, the Locust, Lobster, Squil, al kind of Crabs, and al crusty Shel-fish. III. *Shelly*, as Nautilus, Purpura, Murex, Buccinum, Turbants, Tops al Oisters, Pearl-fish, Lobstars, al kind of Snails, Sea-Combs, Mituli, Tellinæ, Pinna, Bissus, &c. IV. *Plant-animals*, of which see Authors. V. *Insects*, which are either 1. *Land*-Insects both footed, as the Bee, Wasp, Horner, Butter-fly, al kinds of Flies, the Cricket, Grashopper, Beetle, Pismire, Louse, Flea, Spider, Sow, Wood-louse; and *without feet*, as a worm, a Snaile. II. Or *Water-Insects*, as the Horse-Leech, Hippocampe, Sea-star, &c.

The *Parts* of Animals which are used in Physick, are either such as are common to al Sorts, or proper to every one. Of both which we shal treat elswhere.

Article. IV. *Of Medicines taken from the Body of Man, or the little World.*

Microcosmick medicaments, are Medicines which are taken from the body of Man, to cure the infirmities of Mans body.

These medicaments are taken out of a *Live Man*, or from a *dead man*. From a *live man*, we have Hairs, Nails, Spittle, Ear-wax, Milk, Seed, Blood, Menstrual Blood, Secondines, Urine, Dung, Lice, Wormes, Stones of Bladder & Kidneyes, &c. From a *dead man*, Skin, Fat, Scul, Brain, Teeth, Bones Mummy; of which see *Daniel Beckerus* in his *Medicus Microcosmus*, and *Hartman*.

Chap.

Chap. 2. *Of Compound Natural Medicaments.*

Article, I. *Of the Medicinal Wels.*

AND so much shal suffice to have spoke of simple medicaments; the *Compound* follow, which are compounded either by *Nature*, or by *Art*. Of the former sort are the *Aquæ Acidulæ*, or Physical and Medicinal Wels, and the *Natural Baths*.

The Aquæ acidulæ, *or medicinal Wels, are waters which from certain minerals being furnished with a sharp taste and other Virtues, doe cure diseases, when rightly used.*

I. That same acid or sharp taste, from whence these waters have their name, is not in al of them alike strong. Some are sharp, others winy, others have scarce a sensible tartness. Somtimes also the self same Wels are so sharp as to cause a Disentery, somtimes again they are without any taste, otherwhiles very grateful to the pallate; which happens, either through the extremity of hot weather, which exhales their best parts; or by reason of rainy weather, whereby the waters are allaid with the rain; or through a cloudy, dark air with south winds, which peircing into the bowels of the earth, and the veins of mineral waters, makes them clayish, troubled and thick; or through a pestilential and general contagion of the Air; or by overflowing Rivers; or finally, which seldom happens, by reason of some Earthquake.

II. The *Minerals which are wont to Virtuate the waters*, are: Rusty okre, Iron okre, salt, Nitre, Vitriol, Coperas, Mysi, Sory, Iron stone, Chalcitis, Alum, Copper and Iron; especially the four latter. Vitriol and Alum have for certain a remarkable sharpness; that iron has the same quality, we see in *Vitriolum Martis*; and in the Wood of *Arden* there are many acid Fountains; in which wood there is plenty of Iron. And that Copper is not void of Acidity, is hereby manifest, in that there is Vitriol in it, and therefore wherever there is a Copper mine, there is also one kind of vitriol or another. You may know *what Minerals they are*, either *saving the water*, by considering the nature of the place whence it springs, taste, smel, tangible qualities & contents thereof; or by *washing away the water*, by Sunning, Distilling, or Boyling. Now the waters are impregnated. 1. By an *halituous* or spirituous substance. Hence the water becomes light and thin, has no bubbles, is easily altered: being drunk, either it presently strikes up into the Nose, or pierceth and curs the Eies, or causes belchings, or fils the Head, or stirs up a kind of giddiness; nor does it stick long in the Hypochondria. 2. By a moist substance, when liquid mineral juices are thereby imbibed. 3. By a *solid* substance, which communicates its qualities & powers to waters, if there be a proportion between the waters, and what is fercht off from the said substance; if the waters have been long infected therewith, and other waters mingle not with them; finally, if the fragments of mettals be divided into exceeding smal parts. From the diversity of Impregnation, there arises a *Diversity* of *Acidity*. They are *sharp*, wherein the Quantity & number of acid minerals is greater, & the sharp quality more Intent. They are *Winy* in whom their Quantity is less, & Quality more remiss. *Obscurely acid*, in which there is very little of the foresaid minerals, and the acid quality is languishing.

III. Touching the Virtue of these medicinal acid springs, observe. 1. That they cure diseases by *Alteration*, *Corroboration*, *Evacuation* by stool, if the belly be loose; by urine, if the party is inclined thereto; by sweat if the skin be thin, compact, and the Habit of the Body loose; by vomit if the stomach be cold, and the waters contain in them much sulphur; yea by many wales at once as *Van Heer* shews, in his Treatise of the Spaw waters. 2. That those waters have *more* of the mineral virtues in them, which wee find in their native place, where the minerals grow, or in their Channels; which have imbibed liquid juices; which have in them friable & crumbly stones and earth; which slide through a mineral matter, plentiful, soft, rare, porous, a long way, narrow, uneven, ful of turnings, headlong and with violence; those *less*, which run through mines, only in one place, which scour from juices less concrete, stones and mettals; have drunk in little mineral Virtue, and run a short, wide, even and strait way. 2. That it may be foreseen and prognosticated, whether they wil be good or bad; the signs of their goodness are, the Natural Constitution of the four Seasons of the year, the purity and healthiness of the Air, Moderation of Rain, moderate blowing of wholsom winds, &c. of their badness the signs are contrary.

IV. They *are rightly used*. 1. *In respect of the Persons*, if they are not given to decrepit persons, Children, Women with child, consumptive persons, tympanied persons, Ana-

sacra-dropsied, Dysenteric, Asthmatick, menstruate or Rein-exulcerated persons. 2. In *respect of the time*, if they are not drunk when they are altered, if not in the winter Season, unless upon extraordinary occasion and al things suitable; if they are given to drink when their signs argue them to be at the best, if cheifly in the spring, morning and evening, if in their place of springing, or not far off. 3. In respect *of the use of things foregoing*, if the body be prepared with a Lenitive, blood-letting, opening of the passages, driving away hurtful Humors. 4. In respect of the *Use of things circomstantial*, if they be so drunk, as to rise by little and little to the higheſt dose, and to stop there a while, and so to descend by little and little to the lowest Dose; if the measure prescribed be divided into parts, if good diet be observed &c. 5. In regard of *things following their use*; if the Body be duly stirred. If diligent consideration be had, which way nature inclines; that is to say, whether they are like to work by stool, Urin, or Transpiration, or by many waies at once; if being retained, they may be brought away by convenient Clysters; if such Symptomes as usually occur, be provided against.

IV. How there are many acid Fountains, and medicinal springs in *Europe*, the chief of which are in *Germany*. 1. The *Spaw-Waters*, and they are four Wels in number, Geronster, Rouhont, Savinire, and Tunnelet. 2. Those of *Greisbach* at the Entrance of the Hercinian Forrest, which are seasoned with Iron, Vitriol, Christaline salt, Bitumen & Sulfur. 3. The *Petrine* Wel in *Alsatia*, a quarter of a mile distant from the former, & is qualified by some minerals. 4. *Antegast* Water, scituate at the Entrance of the Hircinian Wood, which is impregnated with Alum, Sulphure, and a little Vitriol. 5. *Ribelsave-water*, by the said Wood, in the County of Furstenberg, which has in it the spirituous subtilties of Iron, Nitre, vitriol, Chalcitis, Bitumen. 6. *Gebresveil Water* in the upper *Alsatia*, which is virtuated by Alom, Nitre, and Iron. 7. *Schwalback-Water*. 8. *Egran Wel*, in *Bohemia*. 9. *Niderawen* Spring near *Rottenburg*. 10. *Denachen Wel* in the Hercynian Forest. 11. The Federan Wel in *Rhetia*, which contains Alum and Coper, with a little Sulphur. 12. Wels of *Trevire*, which are three, one of which runs through a yellowish earth and Iron. I shal pass over the rest in silence. At this present while I am writing, many things, and they truly, miraculous, begin to be reported of the Wels of *Horn-Hause*, in lower *Saxony*. Touching those acid waters see *Sebizę*, *Baccius*, and others whom ye shal find in *Vander Linden de Scriptis Medicis*.

Article. II. *Of Bathes*

Bathes are hot waters, which bubble perpetually out of the Earth, are heated by the Subterranan fire, and having gained Vertue from divers Minerals, they cure Diseases, being fitly used.

I. They are *hot* either at their Head, or in their Chanels; either more or less.

II. They *leap and bubble out of the Earth*, becausе they have their Rise in an high Place, either in Mountains, or at the foot of a Mountain, as experience shews. They *bubble up perpetually, for the most part*, becausе the Earth is alwaies moist, and the subterraneal Heat does alwaies carry up vapors to the Concavities of Mountains, which where they cannot exhale, they are condensed, compressed, and turn into drops of water. Yet bathes are found, which rise & fal with the Ebbing and Flowing of the Sea. Nor do they alwaies flow out at one place: becausе the secret passages are either destroyed or stopped up.

III. The *Heat* of Bathes comes from the subterraneal fire, which is kindled by an indifferent hot exhalation, thin and enflamed, getting among the Sulphur and Bitumen, by which it is fed. Either the waters run through those hot subterranean places, or in the way they are joined to the flames and Heat; or they run so long above or by the Channels, til they grow hot; or whiles the Earth grows hot by underground fires, many vapors are from thence raised, which being at last, in some wide place turned to water, they do in one place or other seek an out-gate: or lastly, two or more metalline waters, being naturally cold to the touch, do in their converse grow hot through repugnancy of their Spirits; an example whereof we have in spirit of virriol, and oyl, or salt of Tartar, also in *Aqua fortis* and Tartar, in Butter of Antimony and spirit of Nitre.

IV. *Subterranean matters which virtuate the Bathes*, are divers: partly minerals, partly mettals; which may be gathered from the several Bathes. Now how that comes to pass, and how the Materials in them may be known, I shewed before.

V. The *Diseases that are cured by them*, are also various, the Colick, Mother-fits, Stone, Barrenness,

Barrenneſs, Headache, &c. Some of which they cure directly, others by accident.

VI. *They are uſed to drinke*, for which intent, they are bad, which have ſome hurtful metalline property in them; alſo to bathe, Foment, in ſtoves, and by application of their clay: of al which ſee beſides *Fallopius*, *Horſtius and Rulandus* in Balnearium reſtauratum.

VII. The principle Bathes in *Italy* are, the Bathes of *Padua*, out of which the moſt famous bathes of Ebanus comes, made of a mixture of ſulphur, Alum, Nitre, Salt, and Chalk; the *Porritan* Baths, forty miles from Bononia; the *Lucan*, the cheife of which is that which is termed de Corſeno; *Sante Mariæ in Bagno*, Situate in Romandiola, *Aqueæ* in the County of Piſa, *Petriolæ*, in the Dukedome of Sena, ful of alum; *Gratinæ*, in the Earldome of *Viterbium*, which conſiſt of iron & braſs; *Peruſinæ*, which participate of a little Sulphur and Aſphaltum; *Montis Catim*, which are all ſalt, &c. In *Germany* are commended the *Plumbariæ*, in Lorraigne, ſo called from the plentiful admixture of Lead; *Badenſes* in Switzerland, which conſiſt of much ſulfer and a little Alum; *Ferinæ* in the Dutchy of Wirtemberge; *Cellenſes*, not far from the Martian wood; *Amenſes*, ſituate neare Rotenburge; *Embſenſes*, in the borders of the Lake of Conſtance; the *Carolinæ* in Bohemia; the *Wirbadenſes* ſituate not far from Mentz beyond the Rhene; *Gaſtainences* in Bawaria, which by vehement Aſtriction, do facilitate Conception; *Abudiacæ* above Reginoburgum, which ſmel like fried Eggs, &c. See of all *Rulandus* and *Weckerus*. Of the *Fountain* of *Bollen*, very uſeful both in drink and bathing, *Johannes Bauhinus* has written.

Chap. 3. *Of Compound artificial Medicaments in General.*

COmpound artifical medicaments are thoſe which are by art made up of the ſimple, into a certaine forme, being firſt prepared and qualified thereto.

There are touching them conſiderable. 1. The Neceſſity of the Compoſition. 2. The ſtructure. 3. Preparation. 4. Fermentation. 5. Diviſion.

I. The neceſſity of compounding Medicaments appeares from theſe reaſons following. 1. The preternatural Diſorders of the body, being many times compounded, cannot be cured by ſimple Medicaments. 2. The *Parts affected* in regard of their ſituation, temperament, conformation, dignity of their action, with the Conſtitution of the Patient, ſhew the need of compounding. 3. The *Quality* of the *medicament*, which is ſometime neceſſary to the Intention, but not proportioned to the diſeaſe; ſometimes is too weake, other whiles too ſtrong, or infected with an adverſe quality; al which requires compoſition.

II. *Touching the ſtructure*, obſerve. 1. That the Manner thereof requires, that we have a precognition of the ſort of Diſeaſe, and its magnitude, the condition of the ſick, and of the part affected; alſo the natures, faculties, degrees, and doſes of the ſimples. 2. That the Medicament is then beſt accomodated, when it is juſt equal to the diſeaſe, both in quality, the propriety whereof muſt be determined by the particular Nature of the diſeaſe, & in degree which is meaſured by the greatneſs of the diſeaſe & the Nature of the part affected. 3. That every compound Medicament conſiſts of five things. I. the *Baſis* which if conſidered in *general*. 1. It is the meaſure of the faculty, degree, and doſe of the compound. 2. It varies, according to the times of a diſeaſe, the urgent ſymptomes, nature of the part affected, conſtitution of the ſick, Quantity and quality of the other ingredients. 3. It takes its determinate Quantity from its own ſtrength, having alſo an Eye to the Nature of the Patient, the Magnitude, ſence and Dignity of the Part affected, the Celerity and tardity of the Action: if ſpecially conſidered, tis either *ſimple or compound*; *Simple*, which either is for one uſe only, though conſiſting of divers ingredients of the ſame faculty; or it conſiſts of one ſimple medicament which is either ſufficient, or remiſs, or intenſe, or furniſhed with ſome malignant or ſtrange Quality, as odor, taſt &c. *Compound*, which either ſerves for divers uſes, or is compounded of many ſimples, endued with a diverſe and contrary faculty; touching which obſerve, 1. That ſuch is uſed, when we have not that degree in a ſimple, which we deſire, but either more remiſs, or more intence. 2. That in its compoſition regard muſt be had of the firſt, ſecond, and third Qualities. 3. That either it conſiſts of divers ſimples of the ſame faculty and degree: & then it is of the ſame faculty & degree: or of the ſame faculty and a different degree; and then that which is remiſs abates that which is intenſe, and that which is intenſe enhances that which is remiſs, to the middle between both: or of contrary faculties & of the ſame degree, and then it is temperate: or of contrary faculties and different degrees, and then it is reduced to a medium between

both: al which ought so to be understood, that both the equality of Quantity be observed and fermentation excluded. II. With *correctives* which either spur up and quicken a dul lazy basis; or collect and augment the strength of a medicament, which is of thin substance; or excite by extenuation the force thereof, being lodged in a thick matter; or restraine the violence thereof; or temper its malignity; or give it a pleasant tast or smel. They ought alwaies to be of a lesser Quantitity in respect of the Basis, and commonly the proportion of the Basis to the corrections, is judged to be triple: yet certain it is, that the Nature of the Basis and the Correctors, as also the Intent of the Physitian, do vary the same. If the malice of the basis is to be tempered, they are added in an equal Quantity. III. With *Directives* which render the medicaments proper for the part affected, open the waies and passages, prepare the humors, and concoct them, in respect of which a weake basis should be exceeding in an eight fold or octuple proportion, a strong one, should be equal or less. IV. With *conserves*, which fasten the directors and correctors to the basis, and give a fitting forme to the whol compound; and which ought neither to dul the basis with their over greate Quantity, nor to pervert the same by any strange quality.

III. *Preparation of Medicaments*, is either *common*, as boileing, Infusion, Roasting, burning, Calcination &c. Or *chimical* which, I. Is either *diacritical*, which dissolves the combination of the body, or by way of *purification*, to which belong *Drying* and *burning*; or by *Calcination*, which is performed by actual or potential fire, to which *Sublimation* belongs; or by way of *Resolution*, whereby a body is dissolved into divers and heterogeneous parts, and which is performed by *Extraction* and *Tincture*; or by *Putrefaction*, or finally by distillation. II. Or *Syneritical*, which conjoines things divers and separate into one body, whether it be done by *Precipitation*, or by *Reduction*, or by *Coagulation* and *Concretion*, or by *Digestion* and *Circulation*, or finially by *Cohebatino* or the repeated distilation of a liquor poured againe and again upon the matter from whence it has been distilled. III. Or *Immutatory*, which induces a new mode of substance, or quality into a thing, whether it be done by *Deliquium*, or by *Fixation* or *Volatisation*, or by Vitrification. Of these consult *Beguine*, *Sennertus* about the end of his book of the Consent and dissent of the Chymists and Galenists, and others.

IV. The *Fermentation* of Medicaments is nothing else but their union by mutual Alteration, by which meanes the old virtues of each of them do no longer remaine entire. It is cheifly to be regarded in Treacle and Methridate.

V. As for the *Division*, compound artificial Medicaments, are *Internal* or *External*. The former are *fluid*, *Solid*, or *middle consistence*. And the latter are divided into as many sorts.

Chap. 4. *Of Compound artificial Medicnies in Special.*

Article, 1. *Of Internal Medicaments.*

Point, 1. *Of internal fluid Medicaments.*

WE cal *those internal Medicaments, which are received by the mouth into the Body; and those we terme fluid which wil* run like water, *and they are.* 1. Decoctions. 2. Infusions. 3. Potions. 4. Medicinal Wines. 5. Medicinal Beer or Ale. 6. *Oxymel.* 7. *Barley water.* 8. *Medicinal Vinegar.* 9. *Distilled waters.* 10. *Syrup.* 11. *Juleps.* 12. *Emulsions.* 13. *Essences.* 14. *Spirits.* 15. *Tinctures.* 16 *Oiles.*

I. *Decoctions*, are made of vegetables, animals, & sometimes of mineralls, if need be, cut, bruised or shaven, boiled in simple or prepared water, over a slow or quick fire, in a vessel open or shut, to the consumption of a third or fourth part of the liquor, the Decoction being afterwards strained, aromatized and clarified. The most noted decoctions are, *The greater aperitive* decoction of the Physitians of Augsburg, with their Decoction of *Rubarbe*, Decoction of *Maiden haire Fumitory*, *Carminative*, *Gallinæ consummatum of a Capon*, and the *Vulnerary* Decoction.

II. *Infusions* are made of Vegetables, or minnerals, purgers or vomitories, steeped a certaine time in some liquor, and afterwards strained forth. The proportion of the Ingredients to the liquor, is one and an half, or double.

III. *Potions* are made, when purgeing Electuaries, Extracts, pouders, roules &c. are mixed with liquors, without boileing.

IV.

IV. *Medicinal Wines*, are prepared, when new or clarified Wine is impregnated with the Virtues of simples, either suddenly by their oyles, spirits, and tinctures, or by long Infusion, either with or without sugar. The principal are wine of Barberies, Quinces, Pomgranates red Corants.

V. Medicinal beers and Physick Ales are made after the same manner.

VI. *Oxymel* is made, when vinegar is mingled with Honey, and plants are sometime steeped therein. The most famous are, the *Simple*, that of *squils*, the *Helleborate Oxymel* of *Gesnerus*.

VII. *Barley water* is made, when barley is sufficiently boiled in water, alone, or with raisons, anis-seed, cinnamon; strained, and made tart with a drop or two of spirit of Vitriol, or of Sulphur.

VIII. *Medicinal Vinegar* is made, when simples or compounds are steeped in vinegar, or it is made of their juices. It is made of Plants. I. Of their *Flowers* as vinegar of rosemary-flowers, of Marrygolds, of Gillyflowers, of Lavendar, of Poppie, of Red-poppie, of Roses, of elder flowers. 2. Of their *Leaves*, as of Mints, Rue, Scordium. 3. Of their *Fruits*, as of Citron peeles, Strauberries, Rasberries. 4. Of their *Roots* as vinegar of *Squils*. There are also compound vinegar, Antidotary, Prefervatory, Bezoardick &c.

IX. *Distilled waters*, either by a Cucurbita in Balneo Mariæ of plants for the most part of cold Nature, whol, or beaten and juiced; or in Vesica, out of hot plants and such whose force is not easily drawn forth, and which must first ferment. They are made *either with wine*, as Wormwood water, Agrymony, Betonie, Carduus, Cinnamon, Liverwort, Lavendar, Lilly-convally, Baume, Penny-royal, Garden sage Veronica, *or without wine*, as are those of Sorrel, Wood-sorrel, &c. Of which see the Dispensatory of Augsburge. They are also made of Animals, as of Capons, Singing birds, Kidnies, Mans blood, dung of Beasts &c.

X. *Syrups*, are made of decoctions, Infusions clarified juices; they are preserved with honey or sugar, & boiled to the consistence of honey almost, and are used both to alter and purge; seldom alone, frequently mingled with a double quantity of distilled waters. Those kept in the *Shops*, are, Syrup of wormwood, of juice of Citrons, of Sorrel, wood-Sorrel, Vinegar simple, of vinegar compound, of Maiden haire, of sowr grapes, of Marsh-mallows, of Orenges, of Mugwort, of Betony Simple, of Betony compound, of borrage, Byzantinus, so cald, simple and compound, of Maidenhaire simple, of Cichory simple, of Cinnamon, of Corals, of Citron peeles, of Quinces, of Endive simple, and compound, Of Eupatoruim, of Colts foot, of Fumitory Simple and compound, of Lycorize, of Pomgranates, of Jujubees, of Hyssop, of Lemons, of Hops, of Baum, of Mints, the Simple and compound, of Myrtiles, of waterlillies, of Poppies, of red poppies, of Cowslips, of Pionie, of Moule-eare, of Apples Simple and Compound, of Purslain, of Horehound, of the five opening roots, of Roses Simple, of dried roses, of Rasberries, of Scabious, of stechados, of Comfrey, of Violets.

XI. *Juleps* are made of distilled waters, juyces, conserves, and sugar, either, without decoction or with decoction.

XII. *Emulsions* are made of seeds, nut kernels, perles, corals, hearts-horne, certaine fruites, being beaten with some liquor poured on, and then strained forth.

XIII. *Essences*, are made of the juice of green herbes pressed out with spirit of wine, and digested in Balneo Mariæ, where they receive their color separated by inclination, and with a little sugar reduced into the forme of a Syrupe.

XIIII. *Spirits* descend in the distillation both of Simple and compound waters, together with the waters themselves, and are afterwards separated from them, by a Cucurbita, vial, &c. But this must be understood of the more volatil sort. The fixer sort, are drawen out by a Retort, and a stronger fire, viz. With sand, or the bare fire. The cheife drawen from *Minerals* are, of Alum, of coral, Mercury, Sal ammoniack; Common Salt, Nitre, Lead, Ambar, Sulphur, Tartar, Vitriol; of *Vegetables*, are, of Wormwood, Wine-vinegar, Angelica, Anisseed, Carduus, Centorie, black-cherries, Scurvy-grass, Quinces, Elder-berries, Fenel, Strawberries, Guajacum, Juniper-berries, Lilly-convally, Baume, Rosemary, Roses, Sage, Danewort, Linden-flowers, Fluellen, wine &c.

XV. *Tinctures* are made of dry Plants, for the most part hot beaten & steeped in some liquor, which is called the Menstruum, as spirit of Wine, May-dew, or some other, set in an hot place, and the vessel shut, so longe as that the liquor wil receive no more colour; and then they are filtred through a Paper, or purified

purified by digestion. The most renowned, are. 1. *Of Minerals*, Of the Sun, Moon, Mars, Saturne, Antimony, Sulphur, Vitriol Smaragd. 2. *Of Vigitables*, and cheifly of flowers, of Winter-cherries, Safron, Black-cherries, Strawberries, St. Johns wort, Peony, Red poppie, Roses, Violets, Elder-berries, Dwarfe elder &c.

XVI. *Oyles*, are drawen out of gummie & rosiny substances, either descend with waters in distillation, or are separated from them, either by a separatory, or by thick linnen threds, or by brown or otherwise sinking paper; in some materials, they sink to the bottom, the more remarkable are, oile of wormwood, Dil, Angelica. Of which see beneath in the first point of the third article.

Point, 2. *Of internal solid Medicaments.*

Internal solid Medicaments are. 1 *Pouders.* 2. *Salts.* 3. *Saffrons.* 4. *Flowers.* 5. *Precipitates.* 6. *Vitra, Glass.* 7. *Feculæ dregs.* 8. *Confects.* 9. *Roules.* 10. *Lozenges or bits.* 11. *Trochiscks. And* 12. *Pils.*

I. *Pouders* consist of one or more medicaments beaten together. They are either *Subtile*, which if they consist of meer spices, and sugar, their proper and peculiar name is, *Tragemata* or *Tragee*, dredge pouders; to which *Sales Sacerdotales*, or the Parsons Salts are to be referred, which are used with meat; or *grosser*, and are termed *Trageæ grossæ*, and *species incisæ*, and are made either of simples, and they either confected over with sugar, or not sugared; or of compounds, viz. the aromatick roules or Lozenges of the shops. We use them both for Evacuation and Alteration. Among the *Purging* sort are, Pulvis sennæ preparatæ, Tartari Chrystalini solutivis, de Tribus, Cholagogus simplex, Cholagogus insucoatus. Earle of Warwicks pouder or Pulvis Cornachinus. Of the *Electuary* of Benedicta Laxativa; Electoph, Hiera picra, Diaphenicon, de Succe Rosarum, Diaturbith cum Rhabarbaro. Among the *Alterers* are, the species or pouder of Aromatica Garyophyllata, Dianthos, Diacalaminthes, Diacinnamomum, Diagalanga, De Gemmis calida and frigida, de Hyacintho, Diaireos, Latificans, Liberans, Diamargaritum calidum, frigidum, Diamoschu dulcis, Diatrion pipereon, Diarrhodon Abbatis, Rosata novella, Diatrion Santalon, Diatragacanthum frigidum, Diaxylo-Aloes, &c. Hitherto appertain *Alexipharmical* powders or Antidotes, such as *Pulvis Saxonicus*, *Cæsaris*, Gascoignes pouder, Viper Pouder, *Countess of Kents Pouder.* Of these and other like Medicaments see the *London* Dispensatory in English.

II. There is in al things, very near, a two-fold salt, *Volatile*, by some called Essential, which sustains not the force of fire, but flies away, and is dissipated in calcination: and *fixed*, which is prepared of the ashes of plants and woods, of which a lie is made, and that is boiled, til al the water exhale, and then the salt remains. 'Tis *purified*, either by frequent solution and filtration, and recoagulation: or if it be dissolved *per Deliquium* in a moist place, let it be filtred, and again coagulated. The *Principal are*, Salt of Wormwood, of Mugwort, of Crabs, of Carduus, Centaury, Chervil, Harts-horn Volatile, of Mans scul Volatil, Eyebright, Bean-shels and Ham, of Strawberry Leaves, Fumitory, Guajacum volatile, Ground Ivy, Juniper berries, Juniper wood, Marjeram, Feaverfew, Bawm, Nitre, Onone or rest-harrow, Arsmart, Pimpernel, Rue, Sage, Mans-blood, Scordium, of amber Volatil, of Tamarisk, of Tartar, of vitriol vomitive, of Urine, Nettles, Zedoary, of Jove, Saturn, Corals, Pearls, &c.

III. *Saffrons* are subtile pouders, or tinctures, reduced into the form of pouder, of a Saffron color, the principal are, *Crocus Metallorum*, which is nothing else but Antimony calcined with Nitre, and reduced into a pouder of a saffron-color, of thin, to which is the *Sulphur Auratum of Antimony*, and of *Mars*, which is divers waies prepared, of which see the Chymists. *Terra Vitrioli* is not unconveniently referred to the Head.

IV. *Flowers* are by Chymists so called, being for the most part the more subtil particles of a body, separated from the grosser substance by Sublimation. The most vulgar are, *flower* of Brimstone, Antimony, Benzoin, to which pertain al other *sublimates*, the chief of which are *Mercurius sublimatus simplex, and Sublimatus dulcis*, *Arcanum Corrallinum*, &c.

V. The name of *Precipitate* is chiefly attributed to *Mercury*; which having been dissolved in *Aqua fortis* is separated from the Solvent water and settles, and receives the name of *Mercurius Præcipitatus* or Turbith Mineral; to which in its præcipitation, if a little gold

gold be added, 'tis called *Aurum Vitæ*. Hereto pertains *Bezoardicum Minerale*, *Mercurius Vitæ*, and some other things.

VI. Glass is made of the Calces of things, if the Ashes or Calx be melted with an exceeding strong fire, and Borax be sometimes added to hasten the Melting, or other melting pouders; the matter being melted, is poured upon an hot bason, or some place. Thus is the Glass of Antimony (or stibium commonly called) and the amber of Antimony made of those Cups, Rings, and purging moneys may be made. Touching the *Vitrum Auratum Antimonii*, and the *Regulus Antimonii* see the Chymists, especially *Schroderus* in his *Pharmacopæa*

VII. *Fecula* is a mealy pouder like starch, and is made of the juice of certain roots pressed forth, or extracted with liquor, which when placed in a cold place, the fecula settles of its own accord, which, the water swimming on the top being poured off, is dried in the shadow. The most usual are Fecula Bryoniæ, Ari, Pæoniæ, Iridis, Serpentariæ, white Lillies, Squils.

VIII. *Confects* are things preserved dry, invented for to gratifie the taste; and they are made both to alter and evacuate. The *chief* are, of sweet almonds, of Aniseed laxative, of Calamus Aromaticus, Cardamoms, Carway, July-flowers, Cichory, Cinnamon, Coriander, Musk Plums, Cubebs, Fennel, Lavender Flowers, Pimpernel Roots, Pine Kernels, Zedoary, Ginger. Hitherto belong Candied things, which are crusted with Sugarcandy, as Acorus, Orenge peels, July-Flowers, Cinnamon, Citron Peels, Nutmegs, Muscatel-Pears, &c.

IX. *Rouls* so called from their shape, for they are either altering or purging, and are prepared with Sugar, whose vulgar proportion is octuple in alteratives, quadruple in Purgatives, more in stillatitious oyls. The *principle* are, *Rotulæ de Berberis*, *Manus Christi* simple and perled, pectoral rouls. Of Sulphur, &c.

X. *Morsuli*, morsels, are made almost in in the same maner. They are either *Alterátives* as the Bezoardic, Cephalic, Cephalicostomachic, of the juice and peles of Citrons, Pectoral Sugars, Rosatum Tabulatum, &c. Or *Purging*, as Diacarthami, Diaphenicon, of Mechoacan, of Jalap, of *Diaturbith cum rhabarbaro*, &c. or *Nutritive*, which are made of the pulp of Capons, Partridges, Cockstones, Flesh of Crabs and Tortoises, &c. To morsels appertain. 1. *Pamdeleon* so called, the Matter and end whereof agrees with Electuaries or Lick-pots, and the form with Lozenges, save that the Pandaleon is shapeless. 2. *Turiones*, as if you would say, *torrones a torrendo* from toasting, which are made of sweet almonds, Nut Kernels, Pine Kernels, beaten or toasted, and made up with honey. 3. *Confections restorative*, as Diamygdalatum, Pineatum, Testudinatum, Diet bread, Naples bisket, &c.

XI. *Trochisci*, or *Parstilli*, are solid cohering medicaments, consisting of convenient ingredients made up with Liquor, in the shape of Lupines, or little flat bowls; invented to this end, that medicaments being poudred, might be in this form the better preserved against the Injuries of the Air. They are prepared of al kind of medicaments, not only pouders and Species, but with addition of thickned juices, Conservs, Extracts, or the like Confections, the dose to the Pouders in being a proportion somwhat less then quadruple, &c. They are either *alterative*, & Wormwood, of Alipta, Moschata, with Amber of Mosch, or without, *Bechici albi*, *Nigri*, *Rubri*, *de Berberis*, *de Camphera*, *de Capparibus*, *de Carabe*, *de Carallio*, *Cypheos* of Democrates, *de Lacca*, *de Myrrha*, *de Spodio*, *de Terra sigilata*, *de Vipera*, *&c.* or Purgers of Agaric, of Coloquintida, &c.

XII. *Pils*, are medicaments reduced into the form of little bals, that they may be swollowed whole, and the unsavorines of the ingredients, not discerned by the Tast. They are made of pouders extracted out of the mass of usual pils, the simples being made up with some liquor. They are either *Alterers* of Bdellium, Bechicæ, or for the Cough, of Castoreum, of Cynogloss, Narcotick pils of platerus, &c. or *Purgers*, of Agarick, Agregative, Alephangine, of Aloes rosata, of Amoniacum Arthriticæ, Assajeret, Aureæ, de Colocynthide, de Hermodactilis, Mastichinæ, Panchimagogæ, &c. They are also distinguished into *Hypogloudes* and *Narcoticæ*.

Point III. *Of internal medicaments of a middle Consistence.*

Internal Medicaments of a middle consistence between fluid and solid, contain under them. 1. *Extracts.* 2. *Rosins.* 3. *Conservs.* 4. *Conserves.* 5. *Quiddennies.* 6. *Electuaries.* 7. *Lick-pots.* 8. *Soapes.* and 9. *Boles.*

An *Extract* is drawn as a tincture, and is reduced

reduced to the Consistence of Honey, Pils, or pouder. The most *usual* are, of wormwood, of Acorus, of Lignum aloes, of Angelica roots, of round Birthwort, of Carduus, of Gilloflowers, of Castoreum, of Centory, of Celondine, of Safron, of Cubebs, of Dictamus, of Enula, of Galingal, of Gentian, of Guajacum, of Masterwort roots, of Baume, of Mint, of Mace, Marjoram, of Broad dock, of Paonie, of Rue, of Savine, of Satyrium roots, of Scabious, of Scordium, of Comfrey, of Tormentil, of Valerian, of Zedoary.

II. *Rosin* is drawn out of Gummy materials with Rosewater and spirit of wine, separate from the feces by inclination, precipitated and dryed with a gentle heat.

III. *Conserve* is made of flowers, sometimes of herbes, and soft roots bruised, and preserved with a double quantity of sugar. The most usual are, of the *tops* of Roman-wormwood, Carduus, Eye-bright, Fumitory, Marjorom, Penyroial, Veronica. Of the *Leaves*, of Sorrel, Wood-sorrel, Scurvy-grass, Mints, Purslane; of *flowers* of Acacia, Betonie, Borrage, Bugloss, Marygolds, Cichory, Broom, White-lillies, Lavendar, Lilly-convally, Mallowes, Baume, Mints, Water-lillies, red Poppie, Peach-flowers, Primrose, Prunella, white and Red-roses, Sage, Elder, Linden, Savory, Colts-foot.

IV. *Preserves* are made of roots, barkes, Fruits, or harder materials, steeped in water or boiled; or of softer, preserved in sugar or honey, to last the better and to be more grateful to the Palate. The more usual are these following. Of the *roots* of Calamus aromaticus, Borrage, Cichory, Comfry, Elecompane, Eryngoes, Pimpernel, Rhubarbe, Satyrium, Scorzonera, Zedoarie, Ginger, both that of China, and the common sort. Of the *flowers* of Orenges, Citrons; the *fruits* of Orenges, Barberies, Cherries, Citrons, either whole, cut in slices, or dried; or of the pulpe of Quinces, bramble berries or Hips, Apricocks, Medlars, Myrabolans bellirican, Chebulan, Citrine, and Emblican; of Wallnuts, and Indian nuts, of Peaches, black-peper in the branch, Sloes, Prunes, Damsins &c. Of *Peeles* of Aurenges, Citrons. And stalkes of Spanish Lettuce.

V. Rob or Quiddiny is the thickned juice of fruits, sometimes of flowers, either with expression, or without expression, boiled and with a like quantity or somewhat more of sugar added. The *cheife* are, of Barberies, Cherries, Hips, red-corants, Elder berries. Hitherto belong *thickned juyces*, of Wormwood, Acacia, Agrimony, Aloes, Carduus, kermes berries, Elder berries, centaury, Quinces, Elecampane, Fumitory, Lycorize, Hedge-Hyssop, St. Johns wort, Henbane. Hypocistis, our blew Orice, Licorize, Mercury, Myrtils of germanie, Nicotiana or Tobacco, Opium, Plantane, Red-Roses, scrophularia, and Solatrum. *Ad hæreunto* Mel Ebulinum, Sambucinum, Juniperinum, and Passulatum.

V. *An Electuary* is made of Conserves, Spices, Roules, Trochischs, a proportion of juice or syrup being added. The *Cheif are*, Venice Treacle, Mithridate, Alkermes, Confectio Anacardina, Aurea Alexandrina, Electuary of Bay-berries, *de Scoria ferri*, *de Ovo*, *Philonium Mesuæ*, *Persicum*, *Romanum*, *Dioscoridum*, *Tryphera magna*, so named because they give a good color to the whole body, and make the breath sweet, and are made up of curious ingredients.

VI. *Eclegma*, or *Lohoch*, or *Lick-pot*, of pouders, species, conserves, juices, mixed with some liquor or syrupe, used against infirmities of the Lungs and Chest. The most usual are, *de Scilla compositum*, *de Caulibus*, *de Farfara*, *de Papavere*, *Passulatum*, of the Pine kernels, of Purslane, of Fox-lungs, Lohoch-sanum and expertum, and succo Scillæ &c.

VII. *Saponea*, is a Lick-pot made of almonds blanched and beaten, and with sugar dissolved in a convenient water boiled to the consistence of Honey, starch and rosewater being added towards the end.

VIII. *Bolus*, a morsel, is made of Electuaries, pulpes, conserves, spices, pouders with a little syrupe, made into the shape of a little bal; given to purge, vomit, alter, or some other purpose.

Article, 2. *Of external Medicaments.*

Point, 1. *Of external fluid Medicaments.*

And so much for compound internal Medicaments; the *external* follow; which are either *fluid*, or *solid or* of a *middling nature*, or indifferent. The *fluid* are. 1. *Clysters*. 2. *Gargles*. 3. *Mouth-washers*. 4. *Oiles*. 5. *Epithemes*. 6. *Pumpings*. 7. *Lotions*.

I. *Clisters*, are medicaments, which by a convenient Instrument, are cast through the fundament into the Guts. They are made of Roots,

Roots, Barkes, Leaves, Flowers, Fruites, boyled in water and ſtrained, ſome other things being added, which may ſerve the Intent of the Phyſitian. Their uſe is to looſen the belly, to clenſe, diſpel wind, to bind, to ſodder, to allay the paines, of the Guts and kidneyes.

II. *Diaclyſmata* or *Mouthwaſhings*, are medicaments, which are kept in the mouth, and are by the tongue moved up and down without ſwallowing. They are cheifly provided for paines of the Teeth and Diſeaſes of the Jawes.

III. *Gargariſmes* are medicaments, with which the throat is waſhed without ſwallowing down, the humor being forced up and down by the breath. They are made of diſtilled waters, or convenient decoctions, neither unpleaſing in taſt nor ſmel, nor haveing any venemouſneſs in them, in which ſome ſyrupe or Quiddinie is diſſolved. We uſe them in repelling, diſcuſſing, ripening, abſterſion, conſolidation.

IV. *Oiles* are made either by *diſtillation*, as aforeſaid: or by *expreſſion* of the oleaginous juice, when the fruits and contuſed ſeeds grow warme with the vapour of hot water, and being put in a bag are ſqueezed in a Preſs: or by *infuſion*, either when the ſimple medicaments with ſimple water, or diſtilled water, wine or other convenient liquor, are boiled in common oile, til the Humor be conſumed: or when the ſame ſimples are macerated in a gentle Heat, or in the Sunn; or when dryed plants, are with oile digeſted in balneo Mariæ, the oile being afterwards preſſed out and clarified. The *Oiles preſſed out* are theſe; Oile of bitter Almonds and of ſweet, of Hazel-nuts, of Hemp ſeed, of Cherry kernels, of Citron ſeeds, of Rocket, of Henbane, of Walnuts, of Baies, of Mace, of Nigella, of Nutmeg, of Ripe and unripe Olives, of Eggs, de palma, of Poppie, of Peach kernels, of Pine kernels, Piſtachios, Rape, Ricinus, ſeſamus, Acorns. *Oiles* by *infuſion* in the *Sun*, and ſimple are theſe, Oile of Wormwood, Southernwood, Dil, Chamemel, Cheiri, Quinces, Elecampane, Euphorbium, Piſmires, Ground-ivy, Jaſemine, Orice, Priver, of Lillies, Lilly convally, wormes, Maſtich, Mint, Melilote, Myrtils, Nard, white lilly, Populeum, Frogs, Roſes, Rue, Elder, Scorpions, Storax, Mullen, Violets. *Boiled Oiles*, compound, are theſe followiug: of Capers, Caſtoreum, Coſtus, St. Johns wort, Lilies, Marjorum, Mandrake, Nard, Poppy, Pepers, Foxes. *The ſtillatitious oiles*, moſt in uſe are theſe. Of Wormwood, of dil, of Angelica, of Anis, Orenge-peeles, May-butter, Benzoin, Calamus aromaticus, Camphire, Cardamoms, Caraway, Cloves, Waxe rectified, Chamæmel, Chervil, Cinnamon, Bark of Citron, Cumin, Cubebs, Euphorbium, Fenel, Galbanum, Guajacum, Hyſſop, Juniper berries, juniper wood, of Tiles philoſophick, of Mace, Marjerom, Maſtich, Baum, Mints, Myrrhe rectified. Of Nutmeg, of Origanum, of Peper, of Peny-roial, Roſemary, of Roſes, of Sage, of Savine, Wildbettony, Spike, White amber, yellow Amber, Tartar, Terpentine, Zedoarie.

V. *Epithemata*, *Epithemes* are applied to the external parts of the Body, and are made of diſtilled waters, juices, infuſions, ſuitable to the part and diſeaſe. To them belong *Oxyrrhodina Roſe-vinegred Epithemes*, which are peculiarly applied to the forhead, with frequent reiterations, to coole and repel. They were anciently made of Oile of Roſes and vinegar; now a daies diſtilled Oiles and waters, as alſo juices and pouders are ſometimes added.

VI. *Pumping or pouring*, is when common water, bathe water, decoctions, Milke, Oile &c. are pumped or poured down upon ſome part, or ſuffered to dril upon the ſame out of a cock or ſpout of a ſifterne or Ewer. They are applied cheifly to three places, viz. the future of the Crown of the Head, the Beginning of the ſpinal Marrow, and to warme the ſtomach.

VII. *Lotions* are either of the whole Bodie, and are called Baths, or of the parts, Head, Hands, Feet, Belly &c. They are made of the ſame things as fomentations are made of.

Point, 2. *Of external ſolid Medicaments.*

External ſolid Medicaments are: 1. *Suppoſitories*. 2. *Peſſeries*. 3. *Plaiſters*. 4. *Cerates*. 5. *Cauſticks*.

Suppoſitories, are ſollid Medicaments, which are put up into the fundament, being formed round like a wax candel, four or five fingers breadth longe. They are made of Honey boiled ſo thick, that it may be wrought and faſhioned with a mans fingers, into which other requiſite materials are ſprinkled. They are uſed to looſen the Belly, the patient being weak; to clenſe and conſolidate an ulcer in the *Rectum Inteſtinum*, to ſtop paine, draw back humors flowing upwards, and kil worms in the Guts.

II. *Pessaries* are made of towzed wool or cotton, wreathed into the forme of a mans finger, impregnated with some juice or Liquor, either alone or with pouders commixed: or of beaten medicaments made up in a mortar with convenient liquors, as Fat, Oile, waxe, Ladanum, Galbanum, Honey, and wrought into the forme of a pessarie: or of green herbes a little bruised, and bound with a string into the shape of a pessarie. Or of pouders, received in thin wool or Cotton, and bound with a thrid into the forme of a Pessarie. Or of pouders received in thin wool or Cotton, and put into a round bag made of thin cloath, which may be included in a round silver Instrument with holes on the sides, made for that purpose.

III *Plaisters* properly so called, are Medicaments, which being spred upon linnen Cloathes or leather, do stick fast to the Skin of the body, & are the same with cerotes in respect of the matter, save that metals and mineralls, and litteridge for the most part, are added, which give it solidity of substance. Al which are boiled to a just consistence, and being cooled are made up into rowles. Sometimes before the Mass is quite cold Cereclothes of old linnen are dipped in, and taken forth. *Emplasters improperly so called*, which are of a middle consistence between a plaster and a Cataplasme, are made without waxe, pitch, and those glewish materials, or fire; with honey, mucilages, and a certaine clammy creame, or a little wax dissolved in Oile. The cheife Plasters are, Album coctum, Apostolicum, Arthriticum, Basilicum, and Lapide Calaminari, Diachylon simplex, Magnum, Barbum, cum Gummi, Citrinum, de Crusta panis, de Baccis Lauri, de Meliloto, de Minio, Mundificativum, Nervinum, Oxycroceum, Diaphenicum calidum, frigidum; de ranis Vigonis, de Rhabardaro, Sparadrap, Stichticum, Paracelsi, Tetrapharmacum, Vesicatorium.

IV. *Cerotes* which consist much of wax, and are not of so hard a consistence as Plasters, are made either of wax, Oile, and Rosin only, or of the same pouders being added besides, so that, the proportion of oiles to pouders is octuple, to wax triple or sextuple, to rosin twelve times as much. Besides al these, fats and gums are added, juices, roots, fruits, or seeds, which must first be boiled, and the colature is afterwards to be boiled with oile, til the watrish liquor be consumed. The *Principle* are, Cerot of Betonie, Diacalciteos, Diapalma, Infrigidans *Galeni*, *Oesypi*, *Diapixer*, *pro Hermofis*, *Santalinum*, *Sparadrappum*, *Vigonis Stomachale*.

V. *Cauteria*, Cauteries, are medicaments which have a power to burne the Body, and to raise a crust, and they are either *Actual*, which consist of red hot metals, of which in our discourse of Chirurgerie; or *potential*, which are made by burning medicaments, and composed of Lie which soap is made of, boiled into a consistence of Salt, or of a stone almost, which is vulgarly called *Lapis corrosivus*. An Ulcer made by a Caustick or Cautery, is commonly called *a fontanel or issue*.

Point, 3. *Of external medicaments of a middle consistence.*

External medicaments of a middle Consistence are. 1. *Balsams.* 2. *Liniments.* 3. *Unguents.* 4. *Cataplasmes.*

I. *Balsams* are made of oiles incorporated with white wax deparated, or oile of Nutmegs by expression, or the marrow of a Calfe washed, or manna clarified. Also the extracts of things whose balsom is desired, may be mingled with them. The *most usual* are these; of Angelica, of Anise, An Apoplectick Balsom, with musk and civet, of Orenges, of Cloves, of Cinnamon, of Citrons, Cubebes, of Lavendar, of Mace, of Marjorom, of Mints, of Nutmegs, of Rose-mary, of Roses, of Rue, of Amber, Zedoary. There are also *distilled Balsomes* which are nothing else but distilled spirits (and a potion of oile) proceeding from rosins, gums, spices, and such like drawn out with spirit of wine. The most usual are, Balsamus vitæ, Nervinus, Antiarthriticus, &c.

II. *Liniments*, are Medicaments of a middle consistency between an oile and an unguent, and are made by adding to Oiles, Butter, Fat, Suet, Marrow, juices, pouders, rosins, teares of trees; in this proportion for the most part, that to one ounce of oiles, two drams or three of fats be added, one dram of spices; sometimes though seldom, a dram of wax is added. Al are mixed either with fire, or without fire, or boiling; sometimes they are set over the fire to melt the gums and fats; and sometimes they are a little boiled to consume and wast away the juices added.

III. *Ointments*, differ from Liniments by their thicker consistence, and are made either without fire, or with fire, of fats, oiles, gums, pouders, usual ointments of herbes, roots, seeds,

seeds; macerated in water, wine, juices, oiles, and boiled to the Consumption of the liquor. The *most usual* are of Agrippa, Ægyptiacum, Alabastrinum, Album camphoratum, Althææ simplex compositum, Apostolicum, Arthanitæ, Aureum, Citrinum, Comitissæ, *Infrigidans Galeni*, Martiatum magnum, de Nicotiana, Turiæ, Pectorale, Pomatum, Populeon, Potabile, Resumptivum, Rosatum, Rubeum Camphoratum, ad Scabiem, Enulatum cum, and sine Mercurio, Apertivum. Of al which see the London Dispensatory in English.

IV. *Cataplasmes* or *Pultesses*, are Medicaments made up in the form of watergrewel or hasty-pudding. They are made, either, *without fire*, which they terme crude, when green herbes bruised are reduced into a Pultis, or dried and poudered. They are mixed with a double or triple Quantity of some convenient Oile or Liquor: either *over the fire* or with boiling, when either the Plants broken or bruised, boiled til they are soft, and drawn through a fearse; to which mucilages, meales, oiles, are added, or the Plants are soon after boiled in Oile. Hitherto may be refered, 1. *Dropax*, or *Pitching*, which is made of pitch melted with oile and other things, that it may stick more strongly to the skin. 2. *Sinapismus*, or a Cataplasme, which is made of Mustard, and other things of like biteing nature. If it be of the milder sort, tis called *Pharnigmus*, because it makes the skin looke red, if strong, tis termed a Vesicatorie; and is made of vesicatories.

Point, 4. *Of external Indifferent Medicaments.*

I *cal those indifferent medicaments which are sometimes prepared liquid, sometimes solid, sometimes of a middle consistence: and they are.* 1. *Apophlegmatismes.* 2. *Dentifrices.* 3. *Nose-remedies.* 4. *Sneezers.* 5. *Perfumes or pomanders.* 6. *Soapes,* 7. *Burning fumers.* 8. *Eye-salves.*

I. *Apophlegmatismes*, are medicaments which being held in the mouth, draw flegm out of the Head and neighbouring parts: They are prepared many times after the same manner that Gargarismes are: sometimes medicaments are beaten, and with some convenient liquor brought into the forme of an electuary: sometimes whole simples are only held in the mouth and chewed: sometimes being beaten they are with honey or wax reduced into trochisks: and sometimes they are shaped into a nodule.

II. *Dentifrices, Teeth-scrubbers*, are prepared to cleanse, whiten, and fasten the Teeth to contract the loosened gums; either fluid, or in forme of a Liniment, Pouder, Trochisks.

III. *Errhina*, Nose-Medicines, are put into the Nostrils, either in a moist forme, which are either powred in, or anointed on; or in a dry form, and then either they are figured out of convenient roots or stalks, into a pyramidal forme, and are steeped in water and so used; or the pouder of simples are blown into the nostrils; or tents of wool or cloath are wet with some juice or water, and being sprinkled with pouders are thrust up into the Nostrils; or pouders are with mucilage, Gum, Terpentine, Oile or Wax, formed into Pyramidal pencils.

IV. *Pharmica, sneezers*, differ not much from the former, and procure sneezing.

V. *Odours* are made of such things as have a sweet smell, and are either fluid, or are made up in the forme of an Apple, Pouder, Liniment.

VI. *Soapes* are made of Castle-soape shaven, and about a sixt or eight part of some convenient pouders mixt therewith, and with some liquor made into a mass of which washballs are framed.

VII. *Suffitus, Perfumes to burn*, belong to Odors, and are prepared in form of Pouder, Trochisks and Pyramides.

VIII. *Eye-salves* are used externally to the Eyes, and are prepared either drie, being beaten very small in a mortar; or moist, which either are distilled into the Eyes in form of a Liquor, or anointed upon them in form of a salve; or Vaporous, which being boiled in water, the vapour exhaling from them is received into the Eyes, the patients Head being to that end covered with a cloath of Linnen. But touching al these consult the *Medico-chymical Pharmacopeia of Dr. John Schroder*, which I commend to students of Physick above al others.

Chap. 5. *Of Medicaments denominated from their Facultis.*

Article, 1. *Of altering Medicaments.*

Point, 1. *Of hot Medicaments.*

SO much may suffice to have spoken of Medicaments simple and compound. Medica-

ments denominated from their faculties, are either *Alterers*, or *Causers of Motion*, or *Producers of somewhat*, or *takers away of somewhat*, or *Resisters of Poison*.

Altering Medicaments are many waies differenced: for they are Temperate, Hot, Cold, Moist, Dry, Digesting, Emollient, Hardning, Relaxing, Rarifieing, Condensing, Shutting, Opening mouths of veins, Attenuaters, Openers, Incrassaters, Emplasticks, Deobstructers, Absterfives, Pain-asswagers, and Narcoticks.

I. *Temperate are such as exceed not in the first Qualities*, as are Maiden haire, Asparagus, Lycoriſe, Pine kernels, Jujubes, figs, Sebeſtens, Raiſons, Dates, Gum Elemi, Gum dragant, Veale-ſuet, Goat-ſuet, Hogs-greaſe, ſweet oile.

II. Things are *hot*, in the firſt, ſecond, third, or fourth degree.

I. Things hot in the firſt degree are ſuch as do ſcarce ſenſibly heat the Body, as, The *Roots* of Marſh mallowes, Beares-Breech, Betes, Bugloſs, Lycorize, Satyrium. The *leaves* of Wormwood, which ſome count hot in the ſecond degree, of Marſhmallowes, Borrage, Bugloſs, Betes, Beares-Breech, Colewort, Chamomel, Dodder, Liverwort or Agrimony, Fumitory, Toad-flax, Melilote, Malabathrium, Spicknard, Scolopendrium, Comfres, Colts-foot. The *Flowers* of Borrage, of Bugloſs, of Betony, of Oxe eye, Melilote, Chamomel, Black poplar, Stæchados, Groundſel. *Seeds* of Coriander, Fænigreeke, Line, Gromwel, Seſamus, Rice. *Fruits*, Sweet almonds, Chaſtnuts, Jujubes, Cypreſs nuts, Green wallnuts, ripe Grapes, ripe Mulberries, Sweet fragrant Apples. *Barks*, of Mace, Guajacum, Tamarisk. *Liquors, juices and Gums*, Sugar, Bdellium, Ladanum, Gum Hedera. *Suet* of a Kid, a Doe, an hart, new freſh butter.

II. *Thoſe Medicines are hot in the ſecond Degree, which manifeſtly heat, but without Hurt.* As the *Roots*, of Smallage, Cappars, Hogs-fennel, Pimpernel, Nape, Zedoary, Rhodia. *Leaves* of; wormwood, Calves ſnout, Green dil, Angelica, Smallage, Mugwort, Betonie, Calamus odoratus, Chamepitys, Fænum græcum, Hypericum, Ivie, Hops, Baume, Hoar-hound, Feverfew, Baſil, Chervil, Pimpernel, Hogs-fenel, Polium, Roſemary, Savory, Sage, Scabious, Scordium, Stechados, Tanſey. *Flowers* of Amomum, Safron, Gilloflowers, Schænanth, Lavendar, Hops, Baume, Roſemary. *Seeds*, of Dil, Smallage, Orobus, Rocket, Baſil, Nettle. *Fruits*; of Cappars, Nutmegs, Piſtachives, drie figs, drie nuts. *Barks*; of caſſia lignea, Cinnamon, Franckincenſe, of Cappar roots. *Liquors, Gums Roſins*; Wine which is not old, Ladanum, Aloe, Galbanum, Myrrhe, Maſtich, Franckincenſe, Storax. Fat, Lions-fat, Panthers, Beares and Foxes greaſe.

III. *Hot in the third degree are ſuch things, as doe vehemently Heat, and with trouble, but without Corruption*: as the *Roots* of Acorus, Aſarum, Squils, Dictamus, Doronicum, Fennel, Galangal, both the Hellebors, Enula Campane, Orice, perſley, Radiſh. *Leaves*; Southernwood, Aſarum, Agnus Caſtus, Arum, Ammoum, Biſhops-weed, Dry dil, Baccharis, Dictamus, Avens, Ground Oak, Cnicus, Centaury, the greater and the leſs; Celondine, Calamint, Flea-bane, Menthaſtrum, Fennel, Epithymum, Elecampane, Juniper, Hyſop, Bayes, Marjoram, Cockow-Pintle, Mint, Nigella, Ænanthe, Bindweed, Perſley, Sneez-wort, Peny-Royal, Reſt-harrow, Rue, Savine, Wild-Time, Water-mint, Time, Trefoil, Vervain, Nettles. *Flowers*; Agnus Caſtus, Epithymum, Leucoium, Ænanthe, Periclymen. *Seeds* of Byſhops-weed, Aniſe, Amomum, Carway, Cardamom, Water-Creſſes. Fennel, Carot, Cummin, Nigella, Navew, Perſley, Seſeli, Staphes-acre, Agnus Caſtus. *Fruits*; Juniper Beries, Cloves, Carpobalſamum, Anacardia, Pepper. 4. *Barks*, of Mace, *Liquors*, Tears, *Gums*; old Wine, Aſa dulcis, fætida, Ammoniacum, Cedrian, pitch, Opopanax, Moſch. *Metaline*, flower of Braſs, Burnt Braſs, ſcales of Braſs, Verdigreiſe, Diphryges, Alum, Salt, Nitre, Sulphur, Vitriol.

IV. *Hot in the fourth degree, are ſuch as heat with the greateſt dammage to the Humane Body*: as, *Rootes*, Garlick, Onion, Coſtus, Leeks, Pellitory. *Leaves*, Pepper-wort, both the Water-creſſes, the Headed-Leek, Fullers Herb, Thapſia, and Spurge. *Seeds* of Water-Creſſes, Muſtard. *Fruits*, Pepper; *Gums*, Euphorbium: *Metaline ſubſtances*; Vitriol, Orpment, Sandarach, Chryſocolla, Miſy, ſory, Melantheria.

Point II. *Of cold Medicaments*

Cold Medicaments are, ſuch as alter the Body of Man by cooling, and they are ſuch, in the firſt, ſecond, third, and fourth degree.

I. *Cold in the firſt degree are ſuch as ſcarce ſenſibly*

ſenſibly coole the Boody of Man, and they are *Roots* of Mallowes; *Leaves* of Orach, ſharp-pointed-dock, apple-tree, Myrtle, Pellitory. *Flowers* of, Mallowes, Roſes, Violets; *Seeds* of Barley, Millet. *Fruits*, Citron-pulp, Quinces, Peares, Prunes. *Juices concrete*, Acacia, Dragons blood. *Stones*, hyacinth, Saphire, Smaragd.

II. *Cold in the ſecond are ſuch as manifeſtly cool, but without hurt*, as the Leaves of Blite, Dandelyon, Lettuce, Duck-weed, Hyacinth, Sorrel, Plantane, Solomons Seale, Flea-wort, Nightſhade. *Flowers*, of yellow Anemone: *Fruits* of Gourd, Cucumer, Galls, Auranges, Peaches, Damask prunes, Pompions, Pomegranates. *Wood*, of Sanders.

III. *Cold in the third degree are, which do indeed vehemently coole, but without deſtroying or corrupting the Body: as Roots* of Mandrake, Leaves of Purſlane, mandrake, Houſeleek, Henbane. *Flowers* Balauſtian. *Seeds*, of Hemlock, Henbane, Poppie. Fruites, Golden Apples, Mad-Apples. *Juyce* of Hypociſtis.

IV. *Cold in the fourth degree are ſuch things as corrupt by cooling and deſtroy the body*; as *Leaves* of Hemlock, Poppie. *Fruits* of Thorne Apple. *Juyces*; Meconium, Opium, according to the vulgar opinion. See thereof *Doringius*, *Hartman*, *Freſtagius*.

Point, III. *Of moiſtining Medicaments.*

Moiſtening Medicaments, are ſuch as by their moiſtening faculty alter the Body of Man. And the moſt are ſuch only in the firſt and ſecond degree.

I. *Moiſt in the firſt degree* are *Rootes*; of Satyrium, Bugloſs, Lycorize, Mallowes, Rapes; The *Herbs* of Bugloſs, Helxine, Mallowes. *Flowers* of Bugloſs Mallows, Endive. *Seeds* of Mallowes, Seſamus. *Fruits*, the pulpe of a Citron, Jujubees, Sweet Almonds.

II. *Moiſt in the ſecond Degree* are, *Herbes*, Violet leaves, water-lilly-leaves, Orach, Blite, Lettuce, Duck-weed, Purſlane. *Flowers*; of water-lillies, violets. *Fruits*; of the Gourd, Melons, Pepons, Peaches, Damask prunes, ripe Grapes, Sugar.

Point, IV. *Of drie Medicaments.*

Drie Medicaments are ſuch as alter the Bodie of Man by drying; and they are ſo, in the firſt, ſecond, third and fourth degree.

I. *Dry in the firſt degree* are *Roots*; Bryonie, Madder, Ænanthe, Tamariſk, Marſhmallowes, Cucko-pintle. *Leaves*; of Bete, Coleworts, Chamæmel, Fenel, Hyacinth, Malabathrum, Myrtle, Mullein. *Flowers*, of Oxe-eye, Chamæmel, Safron, Hyacinth, Melilote, Roſes. *Seeds* of Beanes, Fænugreek, Barley. *Fruits* of Juniper Berries, Chaſtnuts. *Gums*, as Franckincenſe.

II. *Dry in the ſecond degree*, are *Roots*; of Cappars, Cichory, Raddiſh. *Herbes*, Pimpernel, Mugwort, green dil, Betonie, Dodder, Calamus aromaticus, Endive, Sea-Colewort, Shepheards-pouch, Horſ-taile, Tooth-pick, Mint, Wild mint, Plantane, Roſemary, Spicknard, Comfery, fumitory, Pimpinel, Sorrel, Vervaine, Shepherds-Rod. *Flowers*; Balauſtians, Peony flowers, Anemoneyes, Ground-pine, bind-weed and ſtæchados. *Seeds*; of Fenel, Garden-creſſes, lentils, Orobus, Millet, Rice, Poppie, Nightſhade. *Fruits*; Ballanus Myrepſica, Cappars, Quinces, Cypreſs-nuts, Nutmegs, Peares, Piſtachius. *Wood*, of Sanders, *Teares*, *Gums*, *Roſins*; Galbanum, Opopanax, Stone-pitch, Myrrh, Storax, Maſtich, Honey.

III. *Drie* in the *third degree* are Roots, of Acorus, Aſarum, Smalladge, cinnamon, Doronicum, Galangal, Hellebore, Pentaphyllum, Hollow-root, Squil, Three-leaved-ſorrel, Trefoile. *Leaves and Hearbs*; Fearne, Milletoile, Cinquefoile, Polium, Trefoile, Southernwood, Wormwood, Burnt dil, Smalladge Biſhops-weed, Aſarum, Calamint, Ground oake, Ground-pine, Epithymum, Hyſſop, Juniper, Marjorum, Hoare-hound, Origanum, Hogs-fennel, Perſeley, Sneeze-wort, Rue, Savine, Willow, Watermint, Time, Runing-betony. *Flowers*, of Balauſtians, of Epithimum, of Ground-pine of Bindweed. *Seeds* of Dil, Smalladge, Buſhop-weed, Amomum, Aniſ-ſeed, carway, Cumin, Coriander, Nigella, perſeley, Gromwel, Agnus Caſtus, Grana tinctorum. *Fruits*; Cloves, Carpobalſamum, Galls, Peper, Juniper Berries. *Juices* and *Gums*; Aloe Acetum, acacia, camphire, moſch. *Metalline matters*, Flower of braſs, burnt braſs, Scales of braſs, verdigreeſe, diphryges, alume, Salt, Nitre, Sulphur, Chalcitis.

IV. *Things dry in the fourth degree* are of *herbes*; wild Rue, Garlick, Water-Creſſes, Muſtard. Of the *Metalline Medicaments*, Vitriol, Orpment, Sandarach, Chryſocolla, Mily, Sory, Melanteria.

Point, 5.

Point V. *Of Medicaments, digestive, Emollient, Hardening and Loosening.*

Digestive Medicaments are such as assist Nature in concocting such humors as are praeternaturally offensive.

They are also termed *præparatives.* Now they prepare, either by removeing impediments, or by changing the Qualities which resist the action of Natural Heate, respect being nevertheless had to the part wherein the Humors reside.

They are differenced according to the difference of Humors which they prepare. *Yellow choler,* requires things cooling and drying; and if it be thin, it requires thickners. *Flegm* stands in need of Heaters, Dryers and attenuaters. *Melancholy* is corrected by things moderately heateing, moistening, and attenuateing. *Black choler* by things cooling, very much moistening and attenuateing.

A Catalogue of these Medicaments may be drawn from such as are attributed to every part of the Body, of which we shal speake anon; and therefore to avoide tautologie, we omit them for the present.

II. *Emollients, are such medicaments as soften and dissolve such Humors as are compacted together, either primarily, as a glewish excrement in the hands of the Muscles; or secondarily, viz. when the thinner parts being either digested, by the unseasonable use of Resolveing Medicaments, or being driven away by overmuch use of Repellers, the remaining parts grow compacted.*

The Greekes cal them malactica: and they must be hot in the second degree, a little dry, of a daubing faculty so as to hinder diffiation; and they must be mingled with moistners. They are either *Indifferent,* or *Strong.*

I. Things *indifferently emollient.* 1. Of *Simples,* are the *Roots* of Lillies, Marsh-mallowes, wild Cucumer, Bryonie. *Leaves* of Mallowes, Pellitory, Violets, Dwarfe-elder; Elder. *Flowers* of Chamemel. *Seeds,* of Fenugreek, Line, Sesamus, Mallows. *Fruits,* fat Figs. *Fats,* fresh butter, fat of an Hen, Hogs-Grease, Calves-grease, Kids-suet, Weathers-suet, al marrowes. &c. Of *Compounds, oile* of Lin-seed, sweet-almonds, White-Lillies, Worms. *Ointments,* of Althea, Unguentum resumptivum. *Emplaster,* de Mucilaginibus.

II. The *stronger* sort are Beares-grease, old oile, bdellium, liquid storax, fat rosins, Ammoniacum, Galbanum, Emplastrum Diachylon simple, and cum Gummi.

III. *Hardners* are *opposed to Emollients*; the Greeks cal them *Sclerotica,* or *Sclerunonta,* and they are cold and moist, as, Sempervivum, purslane, psyllium, Duckweed, Nightshade.

IV. *Relaxers are Medicaments which abate the distention caused by some matter, vapor, or wind, filling and stretching the spaces of the parts.* They are moderately hot, very moistening, and of thin substance, for the more easie penetration, as Lillies, seeds of Line, Fenugreek, Fats, Butter, Chamomel Oyl.

Point V. *Of Medicaments which Rarifie, condense, stop, and open the mouths of the Vessels.*

Rarifying Medicaments, are such as open the pores of the Skin, and make them wider, that the Vapors may be better transpired. They are moderately hot, of thin parts, and not drying; such as are, among Herbs, Marsh-mallows, Mercury. *Flowers* of Chamomel, Melilot, Elder. *Seeds* of Fenugreek, Line, Oyl which is old, and Butter.

II. *Condensers are, such things as contract and straighten the smal pores of the body, but are not able to compact the whol part, strongly, and every where.* They are of a watry Nature, as, cold water; of *Herbs,* Purslane, Housleek, Flea-wort, Mous-ear, Duckweed, green Thistles, Prick-madam, the greater and the lesser.

III. *Stoppers, by their thicknes,* do so stick externally upon the pores of the body, that by their coldnes and dryness, they contract the part. There are of this kind, *Astringents* so called. Such as are, among *Simples,* the *Roots* of Tormentil, Plantane, greater Comfry, dry water Lillies, Sorrel, Curmallow, Filipendula, peony, Avens, Strawberry, Bistort, Rhaponticum, Rhubarb tosted. *Leaves,* of plantane, Knotgrass, Gnaphalium, Loose-strife, Solomons Seal, Horstail, Shepherds-pouch, Mous-ear, Oak. *Flowers,* of Roses, pomegranates, Ivy. *Seeds,* of plantane, purslane, Sorrel, Roses. *Fruits,* Quinces, Medlars, Barberries, Services, Cornel-berries, Galls, Raison-stones, Cypress nuts, myrtle berries. *Shels and Rinds,* of pomegranates, Frankincense tree, myrobalans, mulberries. *Gums,* of mastich, Dragons blood. *Juyces,* of Hypocistis, sour Grapes, Acacia. *Minerals,* Terra sigillata, Bole armenack, blood-stone, Allum, Coral, Iron. *Of Animals,* Harts-horn

horn prepared, Stags pizzle, &c. *Of Compounds* are, *Water* of Roſes, purſlane, plantane, privet. *Syrup* of red Roſes, Quinces, Barberries, marmalade of Quinces, Diacodium narcoticum, Crocus martis aſtringens, pouder of mans bones calcined, freſh made Treacle, Juyce of pomegranates, of Acacia, old conſerve of Red Roſes. The *ſtronger* ſort of theſe medicaments are, Balauſtians, myrtles, Acacia, Hypociſtis, Sumach, pomegranate, medlar, &c.

IV. *Anaſtomaticks, are medicaments which open the mouths of the Veſſels, and are therefore by the Greeks ſo named,* becauſe they ought to penetrate into the inner parts of the body, and to attenuate groſs humors; and therfore they ought to be both hot in the ſecond degree, and endued with a more thick ſubſtance than ordinary, that they may retain heat the longer. Bitter things are moſt convenient.

Point VII. *Of Attenuating, Aperient, and incraſſating Medicaments.*

I. *Attenuating medicaments, are ſuch as diſſolve and make thin, thick, clammy, and glewiſh humors, ſo that either they vaniſh of their own accord, or are eaſily diſſipated by the operation of Drawers.* They muſt be of a thin ſubſtance, hot in the third degree; which is nevertheleſs, not alwaies neceſſary. For the juyce of Lemmons, Vinegar, Oxymel, do attenuate, and cut, though they are cold. See the Catalogue among Operatives.

II. *Apperitive medicaments, do open inward Obſtructions of the Body.* They ought to be of a thin ſubſtance; and therefore are reckoned among ſuch things as appear hot and biting to the ſmel and taſt, which have a nitrous, ſalt, bitter, and acid taſt: but ſeeing there is variety both of the matter obſtructing, and the bodies obſtructed, ſomtimes ſuch as are of thin parts, ſometimes ſuch as are not ſo qualified, are given. Now they are theſe; Among Simples, of *Roots*, the five opening Roots, ſo called, viz. (of Smallage, Fennel, Aſparagus, parſly, and Holm) of Graſs, Cichory, Eryngos, Gentian, Fern, madder, Rhaponticum, Aſarum, Cappars, Tamariſk, Aſh. *Herbs*, Fumitory, Wormwood, Agrimony, maiden-hair, Liver-wort, ceterach, chamepitys, chamedrys, Dodder, Horehound, calamint, penyroyal, ſcurvygraſs, Brooklime, Water-creſſes, Hops, white Horehound, Wormwood. *Seeds* of Annis, Fennel, Ameos, Agnus caſtus, Vetches, Lupines. *Fruits*, bitter Almonds, Cappars, Peach-kernels, Apricock-kernels. *Spices*, Cinamon, Cubebs. *Gums and juyces*, Ammoniacum, Vinegar, Juyce of Lemmons. *Of compounds* are, *waters* of the foreſaid ſimples; Oximel ſimple, Scyllitick, Syrupe of opening roots, *Trochiſcks* of Rubarb, Wormwood, Egrimony, Lacca-gum. Tartar Vitriolated, Creame thereof, Chriſtals and Tincture of Tartar. Tincture of ſteele, pouder, aperient crocus and pils thereof.

III. *Incraſſaters* or *thickners, do make the thin and liquid juices more thick.* They are cold or temperate without acrimonie, and of thick ſubſtance; ſuch as, Porſlane, Sorrel, Poppy, Rice, Lentils, Quinces, Peares, Starch, Chalybeate milk, and juice of Pomegranates.

Point VIII. *Of Obſtructive, And Deobſtructive Medicaments.*

I. *Emplaſtick or obſtructive medicaments are ſuch as by their ſubſtance, do daub, ſtop and clam up the paſſages of the Body, and being ſmeared thereon, ſtick faſt thereto being of a Conſiſtence, either dry and earthy, but without any biting quality, or ful of watry and aerie humor.* They are. I. *Among ſimples.* 1. *Roots*; Of Marſhmallowes, White-Lillies; *Seeds*, Wheate, Starch, Pine-kernels ſteeped in water, Fenugreek, al Mucilages. *Fruits*, Figs, Raiſons. *Gums*, Arabick, Tragant, Dragons blood. *Earths*; Terra ſigillata, Bole-Armeniack. *Juyces*; Alum. *Stones*, Lapis Calaminaris, Bloodſtone, Potters-clay. *Minerals*, litteridge of Gold and Silver, Lead, Oare of braſs, Pompholyx; Cerus. *Animals*, Mumia, freſh fats, marrowes, freſh butter, Cheeſe, whites of Eggs, Wax. II. *Compounds of theſe*; Unguentum Album, Nutritum.

II. *Deobſtructers, do ſcoure away clammy glutinous humors, which ſtick unto the body; they are hot or cold, ſalt, bitter, nitrous.* Such are. I. *Of Simples.* 1. *Roots* of birthwort, Orice, Gentian, Solomons ſeale, Tamariſk. *Leaves*; of Smallage, Wormwood, Centorie, Southernwood, Hyſop, Watercreſſes, Horehound, Agrimony, Ground-Oake, Tanſey, Harts-tongue, Pimpernel. *Seeds*; of Lime, Fenugreek, barly, Orobus, Lupines, and their meales. *Juyces*; Aloes and Sugar. *Gums*; myrrh. *Roſins*; Terpentine. *Minerals*; verdigriſe, Vitriol. *Animals*; whey, beaſts-Gal.

III. *Extergents*;

III. *Extergents*; differ only gradually. Of this kind are Oxymel, Alume water, Unguentum Ægyptiacum, &c.

Point, VIII. Of *Anodynes, and Narcoticks.*

Anodyne Medicaments are those which by their moderate heate, and soft substance, do asswage paine, by opening the pores of the body, and entering thereinto by the tenuity of their substance; and discuss the cause thereof by insensible transpration. Such are. I. Among *Simples*, the Roots; of Marsh-mallowes, Lillies. *Leaves*; of Mallowes, Elder. *Flowers*; of Chamemel, Melilote, Safron. *Seeds*, of Lime, Fenugreek. *Animals*; Fats, of Hogs, Hens, Geese, Calves, Man-fat. *Marrow*; of Oxen, Calves. Milke, butter. II. Of *Compounds*, oiles; of white lillies, Chamomel, Violets, sweet almonds, linseed, worms, and (which is most commended) sweet oile of Roses, of a middle age.

II. *Narcoticks stupifie the part, so that it cannot feel that which pains.* This they do, partly by their coldnes, partly by an hidden Quallity. Of this kind are. I. *Simples*, the *Roots* of Mandrake; *Leaves* of Henbane, mandrake. *Seeds*, of white-poppey. *Juyces*, Opium. II. *Compounds*: *oiles*, of Mandrake *Unguentum* popeleon, *laudanum* ossiatum, *Fernelius* his narcotick lozenges. Spirit of Darnel, &c.

Article. 2. *Of Medicaments which cause motion.*

Medicines which cause motion are either *Drawers*, *Repellers*, or *Astringents*.

I. *Drawers, are such as draw from the deepe parts of the Body into the surface thereof, not only thin and wheyish humors, but also such as are thick, and fast rooted in the Parts of the Body.* They are either hot in the second degree, which draw moderately; or in the third degree, which draw strongly; or in the fourth degree, which swel the skin. Such are. I. *Of simple Roots*, of the two Birthworts, Anemony, bindweed, Tragon, Gentian, Pellitory, Crowfoot, Daffodilly, Reeds, Cuckow pintle, Thapsia, Garlick, onions. *Leaves*: of Wild-Cresses, Calamint, Purple Anagallis, Nex, Thlaspi, Ivie. *Seeds*, of Nettle, Navew, Water-cresses. *Gums*, Euphorbium, Ammoniacum, Galbanum, Sagapenum. *Rosins*; Pitch, Vulgar Rosin. *Annimals*; Dung of Pigeons, Hens, Cantharides. II. Of *Compounds*, Emplastrum Oxycroceum.

II. *I cal them repellers, which do either by their cold watrynes prohibit the influx of humors into any part; or drive back such as are already flowed in, but are not fastened.* They are. 1. *Among simples*; the *Roots*, of Plantane. *Barks*; of Mandrake roots; *Leaves*; of Housleek, Purslane, Duck-weed, Endive, Lettuce, Nightshade, Water-thistle, Venus navil, Lentisk, Sumach, Henbane. *Flowers*; of red roses. *Seeds*; of Fleawort Plantane. *Of compounds*; Waters of Roses, Nightshade, Plantane.

III. *Astringents are such as consist of a thick and earthy substance, stop the passages of the part, force out the the thinner particles of the humor, and consequently do also repel.* They are either Cold or Hot. Cold are, among *Simples*, the Roots; of Sloes, Cinquefoile, bistort, tormentil, great Comfery. *Barks*; of myrobalans, Pomegranates, Frankincense tree, Barbery-tree. *Leaves*; of Horse-taile, small-daisie, mouse-eare, Knot-grass, Shepards pouch. *Flowers*: of Roses balaustians. *Seeds* of Sorrel, porslane, myrtils, White-popy. *Fruits*, Services, Quinces, meddlers, myrtle berries, unripe mulberries. *Gums*, mastich, Dragons-blood. *Earths*: Terra sigillata, bolus Armenia. *Of compounds*: are Waters of Roses, of Plantane, of Privet flowers. *Syrups*; of red-roses, of Quinces. *Conserves*, of dried-roses, Quinces, New made treacle. *Juice* of Pomegranates, trefoile, Crabs, sower Grapes. *Pouders*: Diacorallium, Crocus martis, Burnt harts horne, mans-bones, Spodium, Ambar. *Pills*: de Cynoglossa. Hot astringents are, Cyperus, Wormwood, Calamus Aromaticus, Schænanth, aloe, Thus, Myrrh, Spike, Barks of Frankincense-tree, Cypres-nuts, Alum.

Article, 3. *Of Medicaments which generate somewhat.*

Point, 1. *Of Ripeners, Quittor-breeders, and Flesh restorers.*

Medicaments which breed somewhat are in a six-fold difference. 1. *Ripeners or Quittor-breeders.* 2. *Flesh-breeders.* 3. *Glewers.* 4. *Scarbringers.* 5. *Milke-breeders,* 6. *Seed-encreasers.*

I. *Ripeners, and Quittor-breeders, are such by whose helpe, the Natural Heat turnes*

turnes corrupt blood into Quittor. They are moderately hot and moist, and like in temperament to the part whereunto they are applied. Also by shutting the pores, they keep in the heate. They are in a *twofold* difference. *Some are meerly of a temperate heate, and clammy which we use in hot tumors,* such as are, Mucilages of Lin-seed, Fenugreek, Mallowes, Marshmallowes, Water and oile, Wheate-meale, Milke, Crum of wheaten breade, Hogs-grease, fresh-butter, Unguentum Dialthea. *Others are hot, which we use in cold tumors and parts;* such as the Gums, Ammoniacum, Bdellium, Galbanum, Rosins; Terpentine, Pitch, Vulgar rosins. *Teares* of Firr, Birch and Pine-tree. *Oiles* of Chamomel, White-Lillies. *Ointments;* of Agrippa, Basilicon, *Majus* and *minus.* Emplasters; diachylon simple and cum gummi. II. *Sarcoticks or Flesh-breeders are such things as assist nature to change blood into flesh, both by preserving the Heate of the Part, and removeing such Excrements as hinder the work.* They do moderately heat and drie; also they clense away filth, without any biteing, or astriction. They are of a *Three fold Rank,* In the *first* ranke or degree, are placed meale of Barly, of Fenugreek, of beanes; Franckincente, Manna, thuris. In the *Second,* Terpentine rosin, Larch-rosin, Fir-rosin, Clarified Honey, hony of Roses: Aloes, meale of Lupines, orobus, and Pompholyx. In the *third degree,* meale of Orobus, raw honey, birchwort root, orice roote, myrrh, Viriol.

Point 2. *Of Sodderers, and Scar-bringers.*

I. *Glewing, or soddering Medicaments, are such as bring together the gaping lips of fresh wounds, and hinder any thing from flowing into, or growing between them.* Of which kind are among *Simples,* the *Roots* of Tormentil, Cinque-foile, Bistort. *Leaves;* of Mouse-eare, plantaine, St. Johns-wort, Bugula, Sanicle, Pyrola, Wal-Sage, Rupture-wort, Willow, Vervaine. *Gums;* Myrrh, Frankincense, Sarcocolla. *Jucies thickned;* Aloes, Hypocstis. *Rosins;* Pitch, Terpentine. Of *compounds;* Oyntment of Lituridge, of Betony.

II. *Scarbringers, are Medicaments which consume both that which flowes to, and that humor which is already in the flesh, that the flesh may be changed into the similitude of Skin.* Thick are of thick substance, vehemently drying, astringent and contracting. The cheife are, *Roots,* of tormentil, Cinquefoil. *Herbes;* Comfry, Thorough-waxe, Horsetaile, Plantane. *Flowers;* balaustians. *Juyces concrete,* Coral, Aloes, Juyce of dragon. Earths; Alum, Eole Armenick. *Metalline substances,* Lead, Cadmia, Litteridg, Brass-burnt, and washed, Antimony.

III. Hitherto belong Vulnerary Medicaments, of which vulnerary potions are made. And they are, the roots; of greate Comfry, Bistort, Tormentil. *Leaves; of* Lady-mantile, Shephards-pouch, Golden-rod, Balsaminum, Vervaine, *Fluellin,* St. Johnswort, Millefoil, Sanicle, Horse-raile, Elme, Plantaine, Betony, Cypress, Mouse-eare. Flowers; of red-roses, St. Johnswort, Balaustians. *Fruits;* Cypress nuts. *Gums, Teares;* Frankincense, Aloe, Mastich, Teares of the firr, Terpentine, pine and larch rosins, Stone-pitch, liquor of Elme-leaves, Gum Elemi, Gum of Juniper, of Ivie, of Tragant, Tacamahaca, caranna, Sarcocolla, Dragons-Blood &c.

Point, III. *Of Milke and Seed-breeders.*

I. *Milk-breeding Medicaments in this place are such, as both helpe to make good blood, and moderately attenuate the same and bring it to the Duggs,* such as are these following: green Fenel, the seed thereof, Green Dil, Smalladge, pouder of Christal, Decoction of Colewort, Butter taken with milke and fenel, Smyrnium, Polium, Rocket, &c.

II. *Seed-breeding Medicaments, both those which carrie matter to the spermatick vessels, and they which provoke to the expulsion of seed whether they fil it with wind, or ad aspir or provocation thereto.* The cheif are these, *Roots;* of Eryngos, Satyrion, Ginger. *Seeds;* of Rocket, Mustard, Nettles, Pepper. *Fruits* Pine-kernels, Pistachios, Hasel nuts, the Pap of the Indian nut. *Parts of Animals;* Reins of the Scinci, Braines of Sparrowes, Stags-Pizzle, Cocks-stones.

Article, IV. *Of corrupting Medicaments.*

Corruptive Medicaments are. 1. *Rubifiers.* 2. *Vesicatories.* 3. *Such as induce a Crust.* 4. *Burners.* 5. *Corrosives.* 6. *Putrefiers.* 7. *Psilothra, hair-grubbers,*

8. *Milke-wasters.* 9. *Seed-confounders.*

I. *Rubifiers* make the skin red, and draw Humors from the inner parts of the Body into the skin, such as are the Roots of Thapsia, *Seeds* of Water-cresses, Nettles, Mustard.

II. *Vesicatories* raise bladders, and by their Ardency draw forth humors. The cheife are, Roots, of Bind-weed, Pellitory, Squil, Garlick, Thapsia. *Herbs*; Doves-foot, Flammula, Crow-foot. *Seed*; Of water cresses, Mustard. Also, Euphorbium, Leaven, Soap, Pidgeons-dung, Cantharides.

III. *Crust-Creators*, do not only raise up the scarfe-skin, but also burne the skin it self, howbeit their operation goes no further.

IV. *Burners or Causticks*, bring a thiker crust than the former, and often work upon the flesh beneathe, the cheife are: White Hellebore, ashes of vine-dregs, ashes of the fig-tree, Ashe, and savine tree. Brass-burnt, flower of brass, quick-lime, Vitriol, orpment, Arsenick, mercury sublimate, Salt made of Lie of which soap is made,

V. *Corroders*, take away proude flesh, and do by little and little, melt the upper surface thereof. The *milder* are, *Roots* of white vine, black-hellebore. *Ashes* of the Oake, fig-tree, Conchylium. Aloe, Alum; burnt lead, Antimony calcined. The *stronger* are; Quick-lime, Flower of Brass, Brass-burnt, Vitriol calcined, Quick-silver precipitate, Sublimate, Oyl of vitriol, sulphur &c.

VI. *Putrifiers*, do melt hard flesh. Such are Arsenick, Orpment, Chrysocolla, dryopteris, Pityocampe, aconitum, Sandarach.

VII. *Hair-grubbers*, are such medicines as pluck up by the Roots the Haires of the Body, so as to make the part where they are applied, bald and smooth; such as are, strong lie, quick-lime, ants-egs, sandarach arsenick, orpment &c.

VIII. *Milke-wasters*, do either incrassate and thicken the blood, by overcooleing it, or they dry up and digest the same, or finally they do by their whole substance destroy the Milke. Such are, Mints, Sage, Calamint, Coriander, Henbane, Oyl of unripe Olives, Vinigar, Camphire.

IX. *Seed confounders*, do either coole, thicken, or discuss the same, or consume it by an hidden property. Such are: Mint, Rue, Agnus Castus, Dil, *Seeds* of Hempe, Fleawort. Lettuce, Purslaine, Champhire &c.

Article, V.

Article. V. *Of Medicaments which take somewhat downy.*

Point. 1. *Of Purgeing Medicaments.*

Medicaments which take something from the Body are: 1. *Purgers.* 2. *Vomiters.* 3. *Diureticks.* 4. *Sweaters.* 5. *Transpirers.* 6. *Braine-purgers.* 7. *Expectorators.*

Purgers are such Medicaments, as drive out by stool, such humors as preternaturally nestle themselves in mans body. And they are 1. Choler-purgers. 2. Phlegm-purgers. 3. Melancholly-purgers. 4. Water-purgers. 5. Purgers of all humors together.

I. *Choller-purgers*, are medicaments which drive out preternatural choler. And they are 1. Mild; as among simples, Cassia fistularis, which because it is hurtful to a moist slippery belly and to the stomach, and is windy, it is corrected with a graine or two of peper, aniseed or Cinamon, and is given in a bole, commonly from sixe drams to two ounces; to children two drams may be given. *Tamarins* or Indian dates, convenient for hot Constitutions; which because of their coldness, are corrected with Cinnamon and Mace, and by reason of their lazyness, they are quickned with whey of Goates-milk. They are given in Pulpe, from an ounce to two ounces or three, and in the Infusion to five ounces. *Manna Calabrina*, which is safe in al cases, excepting burning fevers; tis quickned, with syrup of Roses solutive. It is taken in Prune-broath, or the Broath of a Cock or Hen, to the Quantity of three or four ounces. *Aloe Soccotrina*, which taken in too greate a Quantity inflames the Liver: because it opens the orifices of the Veines tis not safe for women with child. Nor is it good for hot and dry natures. 'Tis nourished or impredgnated with juice of damaske Roses. 'Tis corrected with mastich because of its Acrimonie. It is given from halfe a dram to a dram & more: see thereof *Solenander*, sect. 3. Counsel, 29. *Rhubarb*, the soule of the Liver, which must not be given alone, because it is apt to fume, and easily exhales, but with endive water, or syrup of Roses solutive; it must not be given to such as are troubled with the strangury, nor those that are subject to the Hemorrhoides. 'Tis corrected with Cinnamon, Spicknard, Schenanth. 'Tis given from one dram to two drams. *Damaskroses*, musked, fragrant, bitter and detergent. Their Virtue is encreased, if two

ounces

ounces of whey be mixed with an ounce of their juyce, a little spike and Cinnamon being added. *Violets*, which are of like vertue with roses, exceeding good in diseases of the Breast and Head-ache. *Terpentine*, especially pistick, which with pouder of Lycoris and Sugar, is made into Boles, and given to clense the kidnies. Lemnius commends it in a potion. *Among compounds are*, Syrup of roses solutive, hurtful for women with child, because it opens the veines of the wombe, from two ounces to four. Rose-leaves must be gathered while the morning dew is upon them. Their strength lasts hardly beyond six monthes. Syrup of the flowers of Acacia, de Manna Laxativus, Horstius his syrupe of tamarinds with senna. Pilulæ Angelicæ, Benedicta Bejeri. Hiera mellita, from a dram to four drams. II. The *stronger* are, amonge simples, *Asarum*, which being long boiled loses its strength; very wel beaten, it moves vomit. It is given with whey, wine and honey sod together. *Scammonie*, which must never be given to such as are inclined to vomit, feverish, weak persons, in the summer, in broaths, alone, because its acrimonie disturbes the body, inflames the spirits, hurts the principal parts. 'T is corrected with juice of Quinces, mucilage of Gum Tragant, spirit of sulphur or vitriol. Being corrected tis called Diagrydium. 'Tis given from five graines to fifteen. *Of compounds* are *Pilulæ Rhudji* to a scruple; *Aureæ*, which are most in use. *Extract of Scammonie*. The Magisterie thereof, which see in *Mynsichtus* and *Grulingius*.

II. *Phlegme-purging Medicaments are such as draw excrementitious flegm out of the Body.* And they are. I. More *gentle among simples*, Myrobalans, Chebulan, and Emblican; which are to be avoided in obstructions of the Gutts or Bowels; they are steeped in Chick broath to an ounce, or boiled therein, with muscadine. *Cnicus* or *Carthamus seeds*, which purge water, and crude flegme, and raise wind; because they provoke vomit, they are corrected with Anise, Ginger and Mastich. *Mechoacan*, which is of subtile parts mingled with Earthy. Of exquisite tertian Agues, it makes double ones. It works most happily in the forme of a pouder, or if it be steeped a night, in wine, or broath, and drunke in the Morning. Amonge *compounds* are, spices of Hiera picra simple. Lozenges of Mechoacan, described by Horstius. II. *Vehement Flegme-purgers* are, among simples, *Agarick*, which by a peculiar Faculty frees the Lungs from clammy thick and putrid humors. 'Tis safer in the Infusion, than in the substance. *Jalop*, which is most proper, where choler is mixt with flegme. The Dose is from a scruple to two scruples, with cream of Tartar. It has in it somwhat of Acrimony. *Turpetum* gummie and white, which because it hurts the Stomach & provokes Vomit, is corrected with Ginger, Pepper and Cinnamon. By its dryness it brings the bodies of those that over use it, into a Consumption. It works best in a decoction. *Coliquintida*, which purges thick and clammy Humors from the remote parts; and because it sticks to the fibres of the stomach, it provokes vomiting. It must not be corrected by astringents, for they detain it, being a violent medicine, too long in the Body. *Hermodactyls*, which purge thick humors from the Joynts, and are corrected by atenuaters. *Euphorbium*, which is hot and dry, in the fourth degree: because it inflames the Jaws and Throat, vexes the Stomach and Liver, raises cold sweat, 'tis corrected with cordials and Stomach strengtheners, but best of al with Oyl of Roses. It must not be used inwardy before it be a year old. *Sagapenum* which brings out clammy and thick Humors. Of compounds are, Pils of Sagapena of Horstius and Camillus. Syrup of Coloquintida, and Lozenges of Jalap, &c.

III. *Melancholy purgers, are such as drive excrementitious melancholy out of the Body.* And they are, I. Gentle. Among simples, *Indian Myrobalans*, which are principally given in quartan Agues, and purge adust choler. *Epithymum*, which by a peculiar property above all other medicines, purges this Humor, howbeit but weakly. 'Tis more safely used in the Winter than the Summer. That of Crete, is the best. *Polypodie* of the Oak, which because it binds when it is old, must be used fresh and new gathered. That which grows on over old Oaks, by its overmuch Hunidity, subverts the stomach. *Senâ*, which is used to draw humors out of the Mesentery, in the broth of Prunes, Reisons, and in Whey, &c. its cods, if gathered when ful of juyce before they are fully ripe, wil work as the leaves doe; but withering upon the stalk, they lose al their virtue. Among *Compounds* are, *Syrup* of polypody, and Epithymum. *Pils* of Fumitory. Pouder of Sena of Montagnana, &c. II. The *stronger sort* are, among *simples*, *Lapis Armenius*, which must be so long washed in cordial waters, til no more foulnes appear. *Lapis lazuli*, which must

be used after the same manner. *Black Hellebore*, which is least dangerous, in the decoction. 'Tis best corrected with the flegm of Vitriol. An excellent way and Elegant to give it, is, to stick an apple with cloves and black Hellebore Roots, and roast it in the Embers. Among *Compounds* are, *Extract* of black Hellebore, and *Syrup* of the same, in Heurnius.

IV. *Water-purgers are Medicaments which drive waters out of Mans body.* I. The *more gentle* are, *among simples, Soldanella* or Sea-Colewort, which extreamly delights in the company of Rhubarb, and loses not its Vertue by boyling. 2. *Germane Orice*, which provokes the Courses, and loses its force, by boiling. The juyce of the Root is put in an Egshel with the yolk of the Egg, and so they are boil'd together or roasted til the Egg be soft boyled, so as it may be supt. Among *Compounds* are, *Conserve* of Peach Flowers, Pouder of Soldanella of Fowentinus, &c. II. The *more vehement sort* are, *Elaterium*, which slips even without the Veins and draws water away. It may be given to strong persons to the quantity of ten grains, if wel corrected [understand in German Bodies and tough english plough-men or Sadlors] 'tis corrected with Cinamon, Spike, &c. *Cambogia*, which because it makes the Stomach a little sick, it is corrected with Spirit of Salt and Mace. The use thereof is hurtful to cholerick natures. See *thereof Reudenius and Lotichius.* Hedge-Hyssop, which works upwards & downwards. It is dried and steeped in milk, & then dried again, so as that it may be reduced to pouder. *Esula*, whose Milk, Seed, Leaves are very strong, but the Root more mild. It must not be used til a month after it has been gathered. That is best, which is five or six months old. The Bark of the Root is chiefly in use. 'Tis corrected by Infusing three dais in Vineger. Among *Compounds* are, the Magistery of *Cambogia*, *Pilulæ Freytagii*, *Oyl* of Elder-berry Stones.

V. *Purgers of al Humors together, which are called Catholica and Panchymagoga*; are these which follow: of *simples*, Sena, Hellebore, Antimony, &c. Of the compounds, Panchymagogum Crollii, Vegitabile, Paracelsi, Extractum Catholicum majus & minus. Electuarium Diacatholicon, &c.

Point 2. *Of Vomitories and Diureticks.*

Vomitories are such Medicaments as cast forth bad humors, by the Mouth.

Which they do, either because they naturally tend upwards; or because they swim upon the Stomach and burthen the same; or because they loosen the upper Orifice of the Stomach. Of this sort are, I. The *more gentle*, simple water, Luke-warm water, Barley water, fat broaths, simple Oyl with water, Butter, Hydromel. *Root* of Orach, Garden Cowcomber, Melons, Daffodillies, Asarum. *Flowers* of Peaches, of which conserve is made. *Seeds* of Rocket, Orach. The middle *Rind* of a Walnut Tree, when it is fullest of juyce, especially the Cats-tailes thereof. *Electuary* of Asarum of Fernelius. II. The *stronger* sort are, white Hellebore. The Vomitory of Cunradinus, which is given from three drops to ten drops. Gilla of Paracelsus. White vitriol vomitory. *Sala* his salt of vitriol. Flores Mercurii argentei. Mercurius Vitæ, Mercurius dulcis, Manna Mercurii, Aquila. Flowers of Antimony, Oyl and Electuary of Antimony, and Crocus Metallorum. Aqua benedicta of Quercetanus, Pismire water, *Platerus* his Wine, *Heurneus* his Helleborate wine, *Aqua Benedicta Rulandi.*

III. Diureticks, *are medicaments which provoke Urine, and by that means evacuate withal the morbifick matter.*

They are twofold: I. *Properly so called*, which easily penetrate into the Veins, and therein melt the Humors with their heat, and they are *Roots* of Parsly, Smallage, Eringos, Ruscus, Asparagus, Pimpernel. *Herbs*, Asarum, Liver-wort, Chervil, Scordium. *Seeds*, of Gromwel, Chervil, Saxifrage. *Fruits*, bitter Almonds, Peach Kernels, &c. among chymical preparations, is spirit of Salt, and whatever things are compounded of Tartar. II. Improperly so called, and they *either hot*, as Maiden-hair, Terpentine, Ambona Root, of which see *Zacutus*. *Or moist* and which lenifie the passages, as Mallow-seeds, Marshmallow, Lycorice. Or *cold*, as Strawberries, Barly, the four cool seeds, Bath-waters, Whey of Milk, Juice of Lemons. Also Peach-Kernel water with Muscadine is commended. The whitest flints heated red hot and quenched in rich Wine, Oyl of Wax from five drops to six. Salt of Amber, an half dram in weight. Water of Hips, Oyl of Juniper Berries, &c.

Point 3. *Of Hydroticks and Diaphoreticks.*

Hydroticks are, such medicaments as drive out

out the morbifick matter by the habit of the body, in a ſenſible manner, viz. by ſweat.

They are otherwiſe termed Sudorificks. The act by reaſon of their heat and thinneſs or ſubtilty of parts, turning the peccant matter into a vapor; and they which are cold, do act by a propriety of their Subſtance. Now they are, I. *Either Simples*, as Angelica, Pimpinella, Fumitory, Tormentil, Zedoary, China, Sarſaparilla, Saſſafras, Lignum Guajacum, Cornu Cervi, Bezoar ſtone, oriental and occidental.

2. *Or Compounds*, as, Orenge-Flower Water and Treacle water. *Spirit* of terra ſigilata, Tartar, Carduus, de tribus, Treacle, Mithridate. *Salt* of Scabious, Carduus, Wormwood, Aſh. Among chymical preparations, there is Aurum Diaphoreticum, Flowers of Antimony fixed, Turpetum minerale diaphoreticum, Sulfur Auratum, Bezoardicum joviale, &c.

II. Tranſpirers *properly termed Diaphoreticks, are ſuch medicaments as drive the morbifick mater through the pores of the Skin, inviſibly.* They are al hot, turn the Matter in a vaporous ſteam, and open the bodies pores. The chief are, Melilote, Fenugreek, Rue, Marjerom. *Of Kin* to theſe, are *Wind-diſcuſſers*, ſuch as are the *Roots* of the ſmaller Galangal. *Leavs* of Bayes, Dictamus Penyroial, Origanum, Rue, Marjerom. *Seeds* of Annis, Fenel, Carway, Cumin, Carrot. *Fruits*, Bay-berries, Juniper berries. *Barks* of Citrons, Orenges, &c.

Point 4. *Of Medicaments which purge the Brain.*

Brain-purgers are ſuch as void the morbifick matter neſtling in the Brain, by the Noſtrils or Pallate. The former are called *Errhina* and *Ptarmica*; the latter *Apophlegmatizantia.*

I. *Errhina*, do by their nitrous quality melt and diſſolve the flegm which hangs about the Coats of the Brain, and draw it out into the Noſtrils, without any diſturbance to the Brain it ſelf. The chief are, the *Roots* of Orice, Bindweed. *Leaves* of Bete, purple Anagallis, Marjerom, Sage, Betony, Ivy. *Juyces*, Elaterium, which is the ſtrongeſt, and Juyce of Pulſatilla. Alſo they may be made out of the foreſaid roots and Leaves.

II. *Ptarmica*, or *Sneezers*, do by their Acrimony ſo provoke the Expulſive Faculty of the Brain, as to cauſe it to caſt them out, and with them ſuch excrements as ſtick in the Brain it ſelf. The cheif are, the *Roots* of Ginger, Pellitory, Orice white Hellebore. *Leaves*, of ſneezewort, Tobacco *Seeds*, Peper, Muſtard, Staphiſacre, Nigella, Gums, Euphorbium, whoſe ſmel alone is ſufficient.

III. *Apophlegmatizers*, Being either chewed, or gargled, or ſmeared upon the Palate, bring down the Excrements from the Braine into the Palate and mouth. They are made of rootes, of Ginger, Pellitory of Spaine. *Seeds*, of peper, watercreſſes, Muſtard, Staphiſacre; *Gum*, maſtick.

Point, V. *Of Expectorators.*

Expectorateing Medicaments are thoſe which evacuate humors contained in the cheſt and Lungs.

They are made of Roots of Alecampane, Birthwort, Angelica, Orice, Cuckow-pintle, Squills, Lycorice. Of the *Leaves* of Hyſſop, Maiden-haire, Scabious, Horehound, Colts foot. *Seeds* of Cotton, Watercreſſes, Eryſimum, Seſeli, Nettles. *Fruites*, reiſons, jujbes, ſebeſtens, Almonds, Figs, Piſtachios. Hither alſo appertaines Sperma, Ceti. See more of theſe in the Cheſt-medicines.

Chap. 6. *Of Medicaments denominated from the parts of the Body.*

Article. 1. *Of Cephalik Medicaments.*

Point. 1. *Of Cephalick Medicaments, which are hot.*

AND ſo we have done with our Muſter of ſuch Medicaments, as are denominated from their faculties: thoſe follow, *which receive their denomination from the parts of the Body, with which they have an Agreement, by reaſon of their whol ſubſtance and ſpecifical properties.*

Now they are theſe, *Cephalicks, Ophthalmicks, Thoracicks, Cardiacks, Stomachicks, Hepaticks, Splenetick, Nephritick, and Uterine Medicaments.* And al theſe are either *Hot* or *Cold, Internal or External.*

I. *Internal heating Cephalicks* are, 1. *Of Simples*, Roots of Pæonie, Caryophillata, Birthwort, Maſterwort, Calamus Aromaticus. *Leaves*; of Primroſe, Betony, Roſemary, Marjerom, Centory, Sage. *Flowers*, of the Linden-tree, Stœchados of Arabia, Lilly-

Lilly-convally, Peony, Primrose, Betony. *Seeds*, of Amomum, Peonie, Mountaine withie, Coriander. *Fruits*; Kermes Berries, Anacardia, Bay and Juniper berries. *Spices*, Cubebs, Nutmeg, Cardamom, Cloves. *Woods*, Miseltoe of the Oake, and of the Hasel. *Tears*; Frankincense, Storax; *Sea-commodities*, Amber, Ambergreise. *From Animals*; Mosk, Castoreum. *II.* Of compounds: *Water*, of black cherries, of Lilly-convally, Peony, Linden, Gilloflower, Primrose, Orange-flowers, Treacle-water. *Tinctures*, Elixir proprietatis, of Peony, of Sassafras wood. *Distilled oiles*. Of Rosemary, Marjerom, Sage, Rue, Ambar, Spike, &c. *Syrups*, of stechados, Betony, Gilloflowers, Peony. *Conserves*, of Betony, Sage, Rosemary flowers, Lilly-convally, Centorie, Stechados. *Preserves*; Nutmegs preserved, Indian Nut preserved, Preserved wallnuts. *Electuaries*, Confectio Alkermes, Treacle, Mithridate, Diacastoreum. *Spices* of Diambra, Dianthos, Diamoschum dulce, Diacastoreum.

II. *External heateing Cephalicks* are. I. Among *Simples*, al those wel nere, before related. Leaves of Rue, Running betony, upright vervaine, are exceedingly commended. II. *Among compounds* are, *Oyls*, of Sassafras wood, Oyle of Rue, Nard Oyle, Oyle of Baies, of Castorem. *Balsoms*, of Roses, of Rosemary, of Nutmeg, Marjerom, Sage, Ambar. *Emplasters*, de Betonica, de Mucilagnibus, de Baccis Laury.

Point. 2. *Of cooleing Cephalick Medicaments.*

Cephalick cooling Medicaments are likewise internal, or external.

I. *Internal* are, 1. Of *Simples*, the *Roots*, of Mandrake, the *Leaves* of Lettuce, Persiane, Plantane, Night-shade, Water-lillies, Henbane. *Flowers*, of Roses, white popie, Red-poppie, purple violets, water-lillies. *Seeds*, four greater and smaller coole-seeds. *Fruits*, of Gourd, Cucumbers. *Woods*, of Sanders. II. Of *Compounds*. Waters of Roses, Violets, Lettuce, Water-lilly, Night-shade. *Juices*; Opium, Vinegar of Roses. *Syrups*, of white poppie, red popie, Roses, Water-lillies. *Conserves*, of Lettuce, and of the flowers aforesaid. *Electuaries*, Diacodion simplex and compositum, Diaolibanum opiatum, Ladanum opiatum. *Speices*, Diatrion santalon de gemis frigidum, Diacorallium.

II. *External* are, I. Of *Simples*; *Leaves* of Willow, Vine, Venus Navil, Mandrake. The rest may be taken from the foregoing. *II.* Of *compounds*; Waters, of Henbane, Lettice, Water-lillies, Plantaine, Nightshade, Elders, Roses. *Juyces*; of the Birch-tree, House-leeke, &c. Oyles, of Poppeyes, Violets, Water-lillies, Lettice-seed, Mandrakes, Frogs. *Ointments* of Roses, Alablaster, Album camphoratum, Refrigerans Galeni, Populeum.

Article, 2. *Of Ophthalmick Medicaments.*

Ophthamlick or Eye-medicaments, are either Heating or Cooleing; and they are both external and internal.

I. *Internal* Heateing Eye-medicaments are. I. Of *Simples*, *Roots* of valerian, Fenel, Celondine, Navew, Rapes. *Leaves* of the greater Celondine, Fumitory, Eyebright, Pimpernel, Rosemary. *Flowers*; of Eybright, Celondine, Marygolds. *Seeds*, of Anis, Rue, Siler montanus, Turnips. *Spices*, Safron, Lignum-aloes. II. Of *Compounds*, *Waters* of Vervaine, Celondine the greater, Fenel, Vervaine, Rue, Centaury the less. *Syrups*, of Betony, Eye-bright. *Electuaries*, Treacle, Mithridate; *Conserves*, of Eye-bright, Rosemary-flowers, Betony, Sage, Gillowflowers, *Extract*, of Lignum-Aloes.

II. *External* are, I. Of *simples*, the *Roots* of Vervaine, Valerian. The *Leaves*, of which mention has been often-made. *Flowers* of Hypericon, Melilote, consolida regalis. *Seeds*, of Clarie or Clear-Eie, Line, Fenugreek. II. *Of compounds*, Aqua Saccarata, Calendule, Mellis, Mullein, Elder, Bread. *Ointments*, Pomatum Dialthea.

III. *Internal coolers* are, I. *Of Simples*; *Roots*, of Cichory, Straberry, Rapes. *Leaves* of Strawberry, Cichory, Plantane. *Flowers* of white-roses, Violets, Water-lillies. *Seeds*, of Quinces, white-poppie. II. Of *compounds*, *Waters*, Of Strawberry, Porslane, *Syrups*, *Conserves*, *Species*, &c. See among the Cephalicks.

IV. External *coolers* are. I. *Among Simples*, the *Leaves* of Dandelion, Oak, &c. The *Flowers*, see above. *Seeds*, of Beanes, Fleawort, Quinces. *Fruits*, Pulpe of apples. A sweet apple with Sugar. *Earths*, Bole Armeniack, Terra Sigillata. *Metalline Substances*, Cerus, Litturidge of Silver,

Lapis

Lapis calaminaris, Saccharum Saturni, Spodium. II. Of *compounds*, *waters* of Blewbottles, Beanes, Goose-grease, Strawberries. *Mucilages*, of fleawort seeds, Mallow and Marsh-mallow seeds &c.

Article, 3. *Of Chest Medicaments.*

Point, 1. *Of Heating Brest* Medicaments.

Chest Medicaments are likewise, either Heaters or Coolers, internal or external.

Internal Heaters are, I. *Of simples*, *Roots* of Enula campane, Squil, round Birth-wort, Colts-foot, Pimpinel, Scordium, Scabious, Dragon, Soap-wort. *Leaves*, of the five capillary Herbes, Horehound, Clamint, Scabious, Fluellen, Hedera terrestris, Colts-foot, Bottrys, spotted Lungwort, Hyssop, Scordium, Two-penny grass. *Flowers*; of Scabious, spoted lungwort, Hysop, colts foot spike, sea-grass. *Seeds* of wild rue, and Garden rue, of mountaine siler, sesili or Marselles, Chervil, Carduus, southern-wood. *Fruites*; fat-figgs, Dates, Raisons of the Sun, Indian Nut. *Spices*, Saffron Cassia Lignea, Cinnamon. *Woods*, of Sassafrass, Guajacum, Orenge peels. *Earths* & *Gums*, Bole-armeniack, Gum Ammoniac, Myrrh, Terpentine, Choise Frankincense. II. *Of Compounds*; *Waters*, of Hysop, Horehonnd, Maidenhaire, Fluellen, Ground Ivie, Scabious, Carduus, Orice, Calves-grass. *Spirit*, of Turpentine, Sulphur, Ground Ivy. *Distilled Oiles*, of Anise, Fennel, Mace, Sage, Creeping betony. *Tinctures*, Elixir proprietatis, Tinctura Sulfuris, Balsam of the same, or with oile of fenel, or of sweet almonds. *Extracts*, of Saffron, Orice, Fluellen, Calamus Aromaticus, Ground Ivy. *Decoctions*, Decoctum pectorale, of dried Rapes, of an old Cock, of Lignum Guajacum. Syrups of Hyssop, of Horehound, of Maiden hair, of the Juice of Ivy, of Fleuellen, of Scabious, of Tobacco, Oxymel simple, of Squils. *Lohoch*, of Colts-foot, of Fox-lungs, Lohoch sanum and Expertum, de Passulis, de althea. *Conserves*, of Bortys; Veronica, Pulmonaria maculosa, Hedera terrestris. *Electuaries*, Treacle, Mithridate. *Speices* diaireos simple, Diatragacanthum frigidum, Diapenidium, Diathamarum. *Fecula*, Aronis. *Flowers*, of Brimstone, of Benzoin. *Trochisks* Bechici albi and nigri, Diaireos.

II. *External Heaters* are, I. *Of the simples*, al those in a manner, which we formerly mustered. II. *Of componnds*; *Oiles* of Orice, Rue, Costus, Cheiri, Sweet almonds and bitter, Lillies, Line: *Fatts*, Goose-fat, which most penetrates, Deer-suet, Hens-grease. *Mucilages*, of Lin-seed, Fenigreek, marshmallowes, with Safron. *Ointments*, of Marsh-mallowes, Pectoral ointment, and Unguentum Resumptivum.

Point, 2. *Of cooling Chest-medicaments.*

Cooling Chest medica[illegible]ts, are internal or external.

I. The *internal are*. I. *Of simples*; *Roots*, of Garden Endive, Lambs-tongue-plantane, Polypody. *Leaves*, of porslane, Water-lillys, Colewort. *Flowers*, of Violets, mallowes, Water lillys, Buglos, Cichory, red poppy, roses. *Seeds*, the four great and smal cool-seeds, seeds of poppy mallowes, quinces, barly. *Fruits*; Hungarian & spanish prunes, mulberries, Jujubes, sebestens, of water thistle, of sweet briar dried. *Woods*; red sanders, yellow sanders, white Sanders, *Gum* tragant, Arabick. *Animals*; River crabs, whey, Goates-milk. II. *Of compounds*; Waters, of a capon simple and compound, of veale, mallowes, Violets, water-lillies, red popie. *Distilled oiles*; of purple violets, sweet almonds. *Emulsions*, of white poppie, porslane, cold seeds. *Decoctions*, Decoctum pectorale in the London Dispensatory, of a Capon. Syrups; of violets. Jujubees, Water-lillies, Gourds, red poppie, porslane, Dialtheæ Fernelij. *Lohoch*, de Psyllio, of reisins, of Cole stalkes, of porslane of marsh-mallowes. *Electuaries*, Diacodium of the Physitians of Augsburge, new Treacle. *Conserves*, of roses, violets with boile-Armeniack, Spanish Lettuce. *Species*, Diatragacanthi frigidi, Diapenidij. *Roules*, of diatragacanthum frigidum, Diamargaritum frigidum, diapenidium, sugar of roses in Lozenges.

II. *External are*, I. *Of simples*; the *Leaves*, before aleadged. *Animals*, fresh may butter not salted, barrowes grease. *Mucilages* of Fleawort seeds, of Quince seeds, of Fenigreek, of marsh-mallowes. *Oiles*, of violets, white lillies.

Article, 4. *Of Cardiac or Heart-Medicines.*

Point. 1. *Of Heating Heart-Medicines.*

Cardiack medicaments are such as are good for the Heart, whether given in, or outwardly applied; and they are also hot or cold.

Internal are. I. *Of simples*; *Roots* of Scordium, Doronicum, Angelica, Devils-bit, Master-wort, Vince-toxicum, Scorzonera, Dictamnus, Contrajerva, Tormentil. *Leaves*; of *Baum*, Scordium, Sage, Tormentil, carduus, Scabious,

Scabious Fluellen, Cardiaca, Goates, Rue, Garden and wild Cresses. *Flowers*, of the Gilloflower, rosemary, scabious, Centaury, Baum, Tormentil, Borrage, Bugloss. *Seeds* of Citrons. Aurenges, Carduus, Rue, Lovage, Navew. *Spices*, Nutmeg, Cassia lignea, Safron, Cloves. *Woods*, Lignum Aloes. *Gums*; myrrh, Camphire, Benzoin, Mastich. *Sea-commodities*, Amber, Ambar-greise. *Earths and stones*. Bole-Armeniack, Terra sigillata Turcica and stringensis, Perles, Corals, fragments of the five precious stones. *Animals*, Bezoar stone, Harts-horne, Rhinoceros Horn, Bone out of the Heart of a Stag. II. *Of compounds*, *spirits* of Elder and juniper berries, baume, Elixir of Citrons with spirit of muscadine. *Distilled waters*, Of Carduus, baum, Citron-flowers, scabious, marigolds, scordium, Carbuncles, Cinnamon with Cordial flowers, *Bezoardica senerty*. *Distilled oyls*, of Cinnamon, Citron, baum, Ambar, Cloves, Nutmegs. *Tinctures*, of ambar, Elixir proprietatis. *Extracts*, of Angelica, Carduus, Citron peeles, Lignum aloes, Vince toxicum, Zedoary, Safron. *Essences*, the magistery of Cinnamon, Essence of Ambar, of Citrons, of Perles, of Vervaine. *Juyces*, of Citrons with their barks, of Pomgranates, Gelly of Harts horne, made with Vinegar of Harts horne and scordium. *Syrups* of Citron peeles, with and without musk and Ambar, Scordium, Carduus, Orenges, baum, Gilloflowers, Pomgranates, veronica, Borrage, Bugloss, Gallangal. *Conserves*, of Baum, Citron-flowers, Orenges, Gillowflowers, Marygolds, Borrage, Bugloss. *Preserves*, of Citron peeles, Orenge peeles, Indian Nut, Scorzonera roots, elecampane roots. *Electuaries*, Treacle, Mithridate, Confectio Alkermes, Diascordium Fracastorij. *Species and pouders*, of Diamargartium calidum, Diamoschi, Diambræ, Bezoardicus.

II. *External are*, I. *Of simples*, those which have been reckoned up before. 1. The compounds likewise are the same, viz. waters, juices, distilled oiles. Of these Epithemes, bags, Fomentations and Linements are made.

Point, 2. *Of cooleing Heart-medicaments.*

Cooleing Hart-medicaments are either Internal, or External.

I. The *Internal are*, I. *Of simples*; Roots, of Dandelyon, Sorrel. Leaves; of Sorrel, wood-sorrel, Water-lillyes. *Flowers*, of violets, Cichory, Water-lillies. *Seeds*, the four cold seeds. *Fruits*, of Rasberry, red Corants, Barberries, Citrons, Aurenges, Pomegranats, Sweet briar berries dried. *Woods*; the three Sanders. *Earths and medicines from Animals*, are those before mentioned. II. *Of compounds*; Waters, of Sorrel, Straw-berries, black Cherries, Quinces, Hart-Stones. *Juyces*, of Citrons, Pomegranates, Rasberries, Vinegar of Roses, Gelly of Harts-horn, made with Elder-flower Vinegar. *Syrups* of juyce of Citrons, of Pomegranates, of Wood sorrel, of juyce of Red Corrants, Strawberries, Lorrals, Violets. *Conserves*, of Citron flowers, of Aurenges, of the pulp of Citrons, of Roses, of Acacia. *Preserves*, of Red and White Corants, Barberies, Citron, Meates, Eglancine berries. *Species and Powders*, of Diamargaritum frigidum, Diatrion santalon, Magistery of Perles, of Corals.

Article 5. *Of Stomach Medicaments.*

Point 1. *Of hot Stomach Medicaments.*

Stomach medicaments are such as heat the stomach, or cool it; and that either taken inwardly, or outwardly applied.

Internal stomach-heaters are, 1. *Of simples*; *Roots*, of Pimpinel, Rhaponticum, Galangal, Zedoary, Calamus Aromaticus, Caryophyllata. *Leaves*, of Roman and common Wormwood, red and garden Mint, Cardiaca, Cichory, Agrimony, Marjerom. *Seeds*; the four greater and lesser cool seeds, Coriander, prepared. *Fruits*, Juniper berries, bay-berries, Aurenges, Indian Nut. *Spices*, Nutmeg, Ginger, Mace, Cloves, Cinnamon, Galangal, Cubebs, al sorts of Pepper, Cassia Lignea. *Woods*, Lignum Aloes, Guajacum, Citron Peels, Orenge Peels. *Gums*, of Mastich. *Sea-medicines*, Ambar, Ambar-greise. *Of Compounds*; *Spirits*, of Muscadine, of Rhenish Wine, of vitriol, of Mastich, of Wormwood, of Rosemary of Cinnamon, of bread. *Distilled Waters*, of Mints of Betony, Sage, of Cinnamon, with and without Wine, Elixir vitæ, of Baum with Wine, of Zedoary with Wine. *Distilled Oyls*, of Peper, Calamus Aromaticus, Cloves Mace, Cinnamon, Caraway, Fennel, Wormwood, Orenge Peels, Tinctures, Elixir Proprietatis, of Amber, of Corals, of Sassafras Wood. *Extracts*, of Lignum aloes, Wormwood, calamus aromaticus. *Essences*; of Rosemary, Citrons, Wormwood, Aurenges; whereunto belong, Salt of *Wormwood*, Juniper. *Syrups* of Cinnamon, Mints, *Wormwood* Betony, Mastich,

Oximel,

Oximel scilliticum, Syrup of St. Johns-wort flowers. *Conserva*; of Wormwood, Mints, Betony, Red Roses vitriolated. *Preserva*, of China Ginger, true Acorus, Galangal, Citron Peels, Orenge peels, Nutmegs, Indian Nut, Myrobalans. *Species and Pouders*, Aromaticum Rosatum, Diatrion pipereon, Diaxyloaloes, Imperial species, Stomach-pouder of Brickmannus.

II. *External* are, 1. Of simples, such as have been already reckoned up, and of *Gums*, Ladanum, Tacamahaca, Styrax calamites. 2. *Of Compounds*, there are besides the aforesaid, the *Balsams* of Peru, Camemel Romane. *Oyntments*, Stomach Oyntment, Martiatum magnum. *Emplasters and Cataplasmes*, Emplastrum Stomachale, de Crusta panis, de Baccis Lauri, de mastiche.

Point 2. *Of Stomach Cooling Midicaments.*

Cooling Stomach medicines, are also internal, and external.

I. *Internal.* I. *Of Simples, Roots of Cichory*, Sorrel, Asparagus, Water-lillies. *Leaves*, Endive, Sorrel, porslane, mirtle. *Flowers*, of Roses, Violets, balaustians. *Seeds*; the four cool seeds, barley, Sorrel seeds, Rose seeds. *Fruits*, Citrons, Quinces, Orenges, Pomegranates, myrtle berries, medlars, Tamarinds, Corants, melons, and cowcombers. *Woods*, Sanders. *Stones*, Red corals. II. *Of Compounds, waters*, of Roses, Acacia, Strawberries, plantane, porslane, Quinces. *Juyces*, such as are mentioned among cooling Heart-medicines. *Syrups*, of corals, Juyce of citrons, Juyce of sowr Grapes, of Quinces, of Acacia, of pomegranates, Julep of Roses and of Violets. *Conserva*, of Roses vitriolated, of Acacia Flowers, Oak-tops, citron-flowers. *Confects* of Cichory Roots, Quinces, Spanish Lettuce. Diacidonium simplex. *Species and Pouders*, Diatrion santalon, Diarhodon Abbatis, Diamargariti frigidi.

II. *Externals* are, I. *Of simples*, those we mentioned for inward medicaments. II. *Of compounds*; *Oyl* of Roses, Violets, Quinces, Water-lillies, unripe Olives.

Article, 6. *Of Epatick Medicaments.*

Point. 1. *Of hot Liver Medicaments.*

Liver medicaments are hot or cold: and they are internal or external.

I. The *Internal* are, 1. *Of simples*; *Roots*, the five opening, greater and lesser; of Pimpinel, wild Radish, Squills, rhapontica verum, Rhubarb. *Leaves* of Agrimony, Eupatorium of Mesuæ, Kunigund is her herb Mountain Chamædrys, Centaury, water-cresses, Betony, Liver-wort, Ground-pine. *Flowers*, of Centaury, Spike, Squinants, Elder, Liverwort, Hops. *Seeds* of Orenges, Citrons, Brooklime, Seseli. *Fruits*, Aurenges, reisons, Juniper berries. *Spices*, Cinnamon, Saffron, Acorus, Zedoary, Indian Spiknard, Cassia lignea. *Woods*, Legnum aloes, Guajacum, Santalum citrinum. II. *Of Compounds*; *Spirits*, of Elder, Guajacum, Wormwood, Centory. *Waters*, of the Herbs aforesaid. *Oyls*, of Sage, Orenges, Wormwood, Juniper berries, Mace, Nutmegs. *Tinctures*, Elixir proprietais, of Lignum Sassafras. *Extract*, of Gentian, Carduus, Lignum aloes, Wormwood, Guaiacum, Veronica, Calamus aromaticus. *Syrups* of Ground-Oak, Byzantinus Syrupus so called, of Hops, of Wormwood. *Conserva* of Chamædrys, Sage, Wormwood, Fumitory, Rosemary Flowers. *Preserva*, of Acorus, Citron peels, Citrons, Pimpinel roots. *Species and Pouders*, Diacurcumæ, Dialaccæ, Diaxyloaloes, Diamargariti calidi.

II. *The external* are, I. Of Simples; those formerly alleadged. II. *Of Compounds*; *Oyl* of Roses, Quinces, Waterlillies, unripe Olives. *Ointments*, Unguentum Santalinum, Refringerans Galeni, Rosatum Mesues. *Plaisters*, Cerotum Santalinum, Diaphænicon frigidum, Emplastrum de succo Ciculæ.

Article 7, *Of Splenetick Medicaments*

Point 1. *Of hot Splenetick Medicaments.*

Splenetick Medicaments are hot or cold: and both are internal and external.

I. *Internal hot Medicaments* are, 1. *Of Simples*; the *Roots* of Fern which is counted an appropriate medicament, of Scorzonera, of Orice of Florence, of Polipody of the Oak, of Caryophyllata, of wild Radish. *Leaves*, of Scolopendrium, Harts-tongue, Scurvy-grass, Tamarisk, Dodder, Hops, Fumitory, Brook-lime, Chervil, Galiopsis, Ground Oak. *Flowers*, of Hops, Broom, Elder, Chamæmel, Fumitory, Liver-wort. *Seeds*, of Ash, Ammios, Water-cresses, Chervil, Mustard, Nettle, wild Parsenip, Scurvy-grass. *Spices*, Saffron, Epithymum. *Woods*, of Sassafras,

Lignum aloes. *Barks*, of Cappar Roots, middle rind of the Ash Tree, of the Elder and Tamarisk Tree. *Gums* of Ammoniacum dissolved in Vinegar of Squils. II. *Of Compounds*; *Spirits*, of Wine tartarized, of Centory, of vitriol of Mars, of Tartar simple and compound, of Brook-Lime, of Scurvy-grass, of Guajacum, of Juniper berries. *Waters*, of Dodder, Melissa compound, Hops, Watercresses, Scurvy-grass, Fumitory. *Tincture* of Mars. *Extracts*, of the Spleen of Jove, Scolopendrium, Harts-Tongue, Scordium, Fumitory, polypody. *Essences*, of Scurvy-grass, of Epythymum, of Chamædrys, Fumitory, Dodder, Cappars. *Syrups* of Scolopendrium Fernelii, of Broom Flowers, of Epithimum, of Scurvy-grass of Apples, *Forestus* his Syrup against the scurvy. *Conserves*, of scurvy-grass, scolopendria, broom-flowers, Fumitory, Veronica, Ground-Oak, Pimpinel. *Species*, of Dialacca, Diacurcuma, Dicapparum of Hollerius, Tartarus Vitriolatus.

II. *External medicaments are*, I. *Of simples*, those already reckoned, and of *Gums*, Ladanum, Tacamahaca, styrax. II. Of *compounds*, besides the forementioned, there are *Balsams*, of Peru, of Romane Chamæmel, of Mastich. *Unguents*, Unguentum stomachale, Martiatum magnum. *Plaisters and Cataplasmes*, Emplastrum stomachale, de Crusta panis, de Baccis Lauri, de Mastichæ.

Point 2. *Of cooling Stomach-medicaments.*

Also cooling stomach medicaments, are either internal or external.

I. The *Internal*, are, *I.* Of *Simples*; the *Roots* of Cychory, sorrel, Asparagus, waterlillies. *Leavs*, al sorts of Endive, sorrel, porslane, myrtle. *Flowers*, of Roses, Violets, Balaustians. *Seeds*, the four greater cool seeds, barley, sorrel, and Rose seeds. *Fruits*, Citrons, Quinces, Orenges, Pomegranates, myrtils, medlars, Tamarinds, red and white corants, melons, cucumbers. *Woods*, sanders. *Stones*, red-coral. II. *Of compounds*, *waters* of Roses, Acacia, strawberries, Plantane, porslane Quinces. *Juyces*, those which have been mentioned among the cooling Heart Medicaments. *Syrups*, of corals, Juyce of citrons, sour Grapes, Quinces, Acacia, Pomegranates, Julep of Roses, and Violets. *Conserves* of Roses Vitriolated, Flowers of Acacia, Tops of Oak, citron flowers. *Preserves*, of Cichory roots, of Quinces, of Spanish Lettuce, Diacydonium simplex. *Species and pouders*, Diatrion santalon, Diarrhodon Abbatis, Diamargaritum frigidum.

II. *External* are, I. *Of simples*, those already reckoned among the internal medicaments. II. *Of compounds*, oyl of Roses, violets, Quinces, of unripe Olives.

Article, 6. *Of Liver-medicaments.*

Point, I. *Of Heating Liver medicaments.*

Liver medicaments are heating or cooling. And the former are internal or external.

I. *The Internal* are, 1. *Of simples*; *Roots*, The five opening roots greater & lesser, roots of pimpinel, wild-redish, squil, Rhapontick, Rhubarb. *Leaves*, of Agrimony, of Eupatorium of Mesue, of true mountaine ground oake, Centory the less, Water-Cresses, Betony, Liver wort, ground pine, Flowers of Centory the less, spicknard, Squinanth, Elder, Liverwort, Hops. *Seeds* of orenges, Citrons, Brooklime, Seseli. *Fruits*, Orenges, Raysons, Juniper berries. *Spices*, Cinnamon, Safron, Acorus, Zedoary, Indian spike, Cassialignia. *Woods*; Lignum Aloes, Guajacum, Santalum citrinum. 2. *Of compounds*; the *Spirit* of Elder berries, Guajacum, wormwood, Centory the less. *Waters*, distilled of the foresaid Herbes. *Oyles* of sage, Orenge-peels, wormwood, Juniper, Mace, Nutmegs. *Tinctures*, Elixir proprietatis, of Lignum Sassafras. *Extracts*, of Gentian, Carduus, Lignum aloes, Wormwood, Guajacum, Veronica, Calamus aromaticus. *Syrups* of Ground oake, Byzantinus, Hops, wormwood. *Conserves*, of Ground-oake, Sage, Wormwood, Fumitory, Rosemary Flowers. *Preserves*, of Acorus, Orenge-peeles, Citron peeles, Citron pap, pimpinel rootes. *Species and pouders*, Diacurcuma, Dialacca, Diaxuloaloes, Diamargaritum calidum.

II. The *Eternal* are, I. *Of simples*, those before specified, of which decoctions, Bags, and fomentations, may be made. *Ointments*, are Unguentum Nardinum, Martiatum. *Plasters*, Diaphænicon calidum, de Baccis Lauri, Oxycroceum.

Point, 2. *Of Liver-coolers.*

Liver coolers are either internal or external.

I. The

I. The *internal* are, *I. Of Simples*; Roots of Aſpragus, Graſs, Water lillies, Strawberry, Sorrel, Cichory, *Leaves*, of Sorrel, Strawberry, Aſparagus. Sowthiſtle, Garden Endive, porſlane, Lettice, Water lillie. *Flowers*; of Roſes, Cichory, Bugloſs, Balauſtians, Water Lillies, Acacia, red-poppy. *Seeds*, the four great and ſmal coole ſeeds, barley, white popy, violets. *Fruites*, Pomegranates, &c. which we have reckoned among ſtomach-coolers. See *Gums and precious ſtones* in the ſame place. *From Animals*, ſhavings of Harts horne and Ivory, whey of Goates-milk. *II. Of compounds*, Spirit of Vitriol, acid ſpirit of Sulphur, of ſalt. *Diſtilled waters*, of Cichory, Sorrel, Water Lillies, Strawberries. *Syrups*, of the juyce of Cichory, Endive, Sorrel, wood-ſorrel, juyce of Citrons, and the reſt reckoned among cooling ſtomach medicines. *Conſerves*, *Preſerves*, and ſpecies, ſee in the ſame place.

II. *External* are, I. *Of ſimples*, the ſame fore-cited. II. *Of compounds*; *Oiles* of Roſes, Quinces, Water Lillies, unripe olive. *Ointments*, of Sanders, cooling Ointment of *Galen*, Unguentum roſatum of Meſue. *Emplaſters*, Cerotum ſantalinum, Diaphenicon frigidum, a plaiſter of the juice of Hemlock.

Article, 7. *Of Splenetick Medicaments.*

Point, 1. *Of warming ſpleen medicaments.*

Spleen medicaments are, either heating or cooling, eachof them internal or external.

I. *The internal Heating* are, I. *Of ſimples*; *Roots*, of Ferne, which are appropriate, of Scorzonera, of Florentine orice, of polypody of the Oake, of Avens, of wild radiſh. *Leaves*, of true ſcolopendrium, Harts-tongue, Scurvygraſs, Tamariſk, Dodder, Hops, Fumitory, Brooklime, Chervil, Galiopſis, ground oake. *Flowers*, of Hops, Broome, Elder, Fumitory, Liver-wort. *Seeds*, of Aſh, biſhops-weed, Watercreſſes, Chervil, muſtard, Nettle, wild parſnip, Scurvy graſs. *Spices*, Safron, Epithymum. *Woods*, Saſſafrs, Xyloaloes. *Barks*, of capar roots, middle rind of aſh-roots, Elder roots, Tamariſk roots. Gum Amoniacum diſſolved in Vinegar of ſquils. II. *Of compounds*; *Spirits* of wine tartarized, of Centaury, of vitriol, of Mars, of Tartar ſimple and compound, of watercreſſes, of Scurvy graſs, of Guajacum, of juniper berries. *Waters*, of Dodder, of baum compound, of Hops, of Water-creſſes, of Scurvy-graſs, of Fumitory. *Tinctures* of Mars. *Extracts*, of Joves Spleen, Scolopendrium, Harts-tongue, Scordium, Fumitory, Polypody. *Eſſences* of Scurvy-graſs, Epithymum, Ground-oake, Fumitory, Dodder, Capars. *Syrupps*, of Ceterach or Scolopendrium of Fernelus, of Epithymum, of Scurvy-graſs, of Apples, the Scorbutick Syrup of *Foreſtus*. *Conſerves*, of Scurvy graſs, of Ceterach, of Broom-flowers, of Fumitory, of Fluellen, of Chamædrys, Pimpinel. *Species*, of Dialacca, Diacurcuma, Diacapparum of Hollerius, Tartarus Vitriolatus.

II. *External* are, I. *Of ſimples*, thoſe before mentioned. II. *Of compounds*, *Oyls*, of Capars, Orice, Cheiri, Rue, Peach kernels, Almonds, Scorpions. *Ointments*, of dialthea, Martiatum, de Arthanita, de Ammoniaco, Spleneticum. *Emplaſters*, of Melilote, diachylum ireatum, Emolliens Foreſti, diaſulphuris Rulandi.

Point, 2. *Of cooling Spleen-Medicaments*

Cooling Spleen Medicaments, are internal or external.

I. The *internal* are, I. *Of ſimples*. *Roots*, Of Cichory-like plants, and of which mention is made, among liver Medicines. *Leaves*, *Flowers*, *Fruites*, *Seeds*, may be alſo fetcht from thence. To theſe you may ad the barks of willow roots. II. *Of compounds*, are the ſame likewiſe, to which you may ad medicaments prepared of tartar and of ſteel. *Trochiſks* of Sanders, ſpodium, Carabe, Barberries.

II. The *external* are, I. *Of ſimples*; *Roots*, of Mandrake. *Leaves* of white henbane, Hemlock, Willow, Water-lillies. II. *Of compounds*, ſee thoſe reckoned among cooling Liver-Remedies.

Article, 8. *Of Nephritick Medicaments.*

Point, 1. *Of heating Nephriticks, or kidny-remedies.*

Nephritick Medicaments are either heating or cooling, both are internal or external.

I. *Internal heaters* are, I. *Of Simples*; *Roots* of reſtharrow, Saxifrage, Filipendula, Pimpinel, Lycoris, Marſh-mallow, Polypody, Lovage. *Leaves* of maiden haire, Walrue, Fluellen, Chervil, Nettle, ground-ivy, Pellitory of the wal, Feverfew, Reſtharow.

Flowers; of Broome, Spike, Elder, Betony, the yellow of violets, St. Johns-wort flowers. *Seeds*, the four greater and lesser hot seeds, persly, gromwel, Saxifrage, Cherry-stone-kernels, Peach-stone-kernels, Oake of Jerusalem, Beanes. *Fruits*, Juniper berries, Ivy-berries, winter-cherries, bitter Almonds, Sweet-briar berries, Corants. *Spices*, Cassia lignea, Spica, Indica, Safron. *Woods*, Lignum Sanctum, Nephriticum, Tamarisk. *Gums*, Terpentine, Myrrh, Mastich, Olibanum. *Minerals*, Lapis judaicus, Lapis Nephriticus. *From animals*, the stones of Perches, Crabs-eyes, Earth-wormes, Eggs-shels, Jawes of a Pike. II. *Of compounds*, *Spirit* of salt, Terpentine, Elder berries, Strawberries, Cherries, Vitriol, Feverfew. *Distilled Waters*, of Rest-harrow, saxifrage, Persley, Hedera terrestris, Alkekengy, Matricaria, Elder flowers. *Oyls* of Orenges, Juniper, peach-kernels, cherries, bitter almonds. *Tinctures*, Elixir proprietatis, of Ambar. *Extracts*, of veronica, Ground-ivy, Lycorice. *Syrups*, of Maiden hair of Fernelius, Byzantinus so called, of dialthea, Oxymel. *Conserves*, of Hedera terristris, veronica, Sweet briar-berry. *Spices and pouders*, Lithontripticon, Tartarus Vitriolatus, Restharrow-Salt, salt of Beane ham, chervil, Nettles.

II. *External* are, I. *Of simples*, such as were before aleadged. II. Of *compounds*, *Oiles*, of scorpions, white lillyes. *Ointments*, Martiatum, Agrippæ, Aregon, dialthea. *Emplasters*, diachylon simple, Oxycroceum, Melilote.

Point, 2. *Of cooling Nephriticks.*

Cooling Nephritcks are internal, or external.

I. *Internal* are, I. *Of simples*, *Roots* of Grass, Strawberries, Water-Lillies. *Leaves* of Porslane, Willow, Venus Basin, Heartsease, Lettuce. *Flowers*, of Water Lillies, Violets, Roses, Beanes. *Seeds*, the fouer cold, white poppy seed, seed of purple violets. *Fruits*, see among the stomach and liver coolers. *Stones*, Christal. II, *Of compounds*, *Waters* of Strawberries, Violets, barly, porslane, Lettuce. *Juyces*, of Citrons, Strawberries, porslane. *Syrups*, of Water Lillies, Strawberries, porslane, syrup of the juyce of Citrons. *Conserves*, of Acacia, violets, porslane.

II. *External* are the same, to which ad *of the compounds*, *Oyls* of Roses, water lillies, sugar of Lead. *Unguents*; The Ointment of Roses of Mesue, *Galens* cooling Ointment.

Article, IX. *Of Uterine Medicaments.*

Point, 1. *Of heating Uterine or Womb-Medicaments.*

Uterine Medicaments are either Heating or Cooling, and they are internal or external.

I. The *internal* are, I. *Of simples*, *Roots*, of Peony, Valerian, Laserpitium, Angelica, Pimpinella, Bryony, Aristolochia rotunda. *Leaves*, of Mugwort, Rue, round Birthwort, Mercury, Fever-few, Sabine, Betony. *Flowers*, of Betony, Chery, Elder, St. Johns-wort, Stechados, spikenard. *Seeds*, foure hot, mountraine osier, red verches, Rosemary, peony. *Fruits*, Indian Nut, Juniper Berries, Orenges. *Spices*, Cinnamon, Cassia lignea, Nutmegs, Cubebs, Graines of Paradise, Safron. *Woods*, Lignum aloes, Ash, Guajacum. *From Animals*, Castoreum. II. *Of compounds*, *Waters*, of Mugwort, Hysop, Elder, Cinnamon, Zedoary, yellow stock-gillo flowers, betony with wine. *Oyls*, of Cinnamon, Angellica, Ambar, Cloves. *Tinctures*, the Uterine Elixir of Crollius, omitting salt of mother of perle. *Extracts*, Hystericum majus and minus of Quercetanus, of the Liver and Splene of an Oxe, of Baume, of Lignum Aloes. *Syrups*, of Mugwort, Fevertew, Orenges, Baume, Cinnamon. *Conserves* of Marjerom, Betony, Baum, Rosemary, Marygolds. *Preserves*, of Acorus, citron peeles, Orenges, Nutmegs, Zedoary. *Pouders*, Diacalamint, Diaxyloaloes, diacinnamomum.

II. *External* are, I. Of simples, the greatest part of the foresaid, to which may be added, *Gum* Olibanum, storax, bdellium, myrrh, Ladanum, Assafetida, Galbanum, Opopanax, Sagapenum, Ambar. *From Animals*, Castoreum, civet, Musk. II. *Of compounds*, *Oyls*, of cheiri, Angelica, Rue, Castoreum, Nard oile, Scorpions, Nutmegs. *Unguents*, of Bay-berries, Gum Caranna, ceratum matricale, or of Galbanum, &c.

Point, 2, *Of wombe-cooling Medicaments.*

Wombe cooling medicaments are also either internal or external.

I. The *Internal* are, I. *Of simples*, *Roots*, of

of biſtort, comfery. *Leaves*, of Strawberry, Shepherds-pouch, Vinca pervinca, Plantane, Oake, great comfry, Porſlane, Nettles, looſe-ſtrife. *Flowers*, of Roſes, Quinces, Balauſtians, Water-Lillies, Looſe-ſtrife, St. Johns wort, Comfery, Willow. *Seeds*, of porſelane, Plantane, Henbane, white-poppy. *Fruits*, of Acacia, Pomegranates, Medlers, Myrtils. *Woods*, Sanders. *Gums*, Dragons-blood. *Earths and miniralls*, Bole Armeniack, Red corralls, Perls, Chriſtial. II. *Of compounds*, they are ſuch as are made of the foregoing ſimples, and may be known by what has been already ſaid.

II. The *external are* the ſame we alleadged in the ſimples. The compounds have been for the moſt part declared, in the Nephriticks and Hepaticks.

Chap. 7. *Of vegetable Medicaments, referred to the ſeven Planets.*

Planetarie Medicaments are they, which according to the opinions of ſome Men, have received their virtues and names from the Planets, and depend upon them in their operations.

They are as manifold as there are planets, viz. *Saturnine, Jovial, Martial, Solary, Venereal, Mercurial, Lunary.*

I. Thoſe are termed *Saturnine* which are of an horrid aſpect, ingrateful or venemous ſmel, ſtiptick taſt, leane ſhape: and they grow in moiſt places, filthy and woody, ſolitary, and dark; and of this kind are woolfs-bane, Agnus caſtus, Calves-head, Smallage, Finger-fern, Star-wort, orach, Blites, Shephards pouch, Hemp, Cappars, Hemlocks, Cumin, Cypreſs, dodder, Epithymum, Horſe-taile, Fern, Fumitory, Hellebore, Henbane, Great dock, lupines, Mandrakes, Moſs, Opium, pine, Polypody, Sloetree, Rue, Willow, Cetrach, Scrophulary, Sena, Serpentaria, ſeſely, Nightſhade, Tamariſk, Eugh, Vervaine.

II. *Jovial* are ſuch as have a pleaſant taſt and ſmel, red or blewiſh flower, an olive ſubſtance, plaine leaves, and delighting in fat places: ſuch are Gloves, Cherries, ſtrawberries, Olive trees, Betony, Flaxe, centaury, Barberyes, Red corants, Avens, Arſmart, Fumitory, Teucrium, Mullin, Comfery, Galangal, Birch, Ground oake, Almonds, Madder, Prunella, Rhubarb, Looſe-ſtrife, Borrage, Bugloſs, Mulberries, wheat, Thorow waxe, Sophia, Pomegranates, Violets, Coral.

III. *Martial* are of a pointed rough ſhape, of a cauſtick taſt, a color tending to redneſs, & they love dry places, ſuch as are Nettles, Thiſtles, Reſtharrow, Eſula, Rhamnus, bramble, Flammula, Onions, Leeks, Garlick, Radiſh, Peperwort, Wolfes-bane, Henbane, Arſmart Aſparagus, baſilicon, &c.

IV. *Solar*, are of a regal forme, of colour yellow or orenge tawny, of fragrant ſmel, pleaſing taſt, and love ſunny and meridional ſituations, *Such as are*: the Flower of the Sun, Safron, Celondine, Baum, Motherwort, Gromwel, Roſa ſolis, lillies, Gentian, laurel vine, Elecompane, St. Johns wort, Aſhe, Marygold, Gold-flowers, Roſemary, Mints, Citronwort, and ſome others.

V. *Venerial* are ſuch as have a white flower, a clammy humor, a ſweet taſt, a wanton ſmel, ſhape of leaves ſmooth not jagged: *Such as are* Satyrium, Vulgar peaſe, boletus cervinus, Cuckow-pintel, pine and oake-apple, Parſnips, Water Lillies, Daffodillies &c.

VI. *Mercurial* are, ſuch, as have a various color of the flowers, bear cods, and are bred for the moſt part in a ſandy place; *ſuch as are*, Beanes, Chamemel, Trefoil, daiſies, juniper, Wallnuts, Haſils, Elders, Dragons, Monyworr, Lungwort, Aniſe, Cubebs, Marjerom.

VII. *Lunary*, are ſuch as have thick juycie leaves, of a watry or ſweetiſh taſt, they ſoone grow to their juſt magnitude, and love marriſh watry places; *Such as are*, Coleworts, Gourds, Melons, Pepons, Mandrakes, Papaver erraticum or Red poppy, Lettuce, Rapes linden tree, Duckweed, &c. See hereof *Etzlerus* in his Ifagoge-Phyſico-magico-medica, and *Helvicus*, Dietericus de Novo orbe; alſo *Toxita* his Cornu ſalutis, and *Carrichterus* de plantis. Alſo in *Turniſerus*. you ſhal find many things.

THE

THE FOURTH BOOK OF THE IDEA OF PRACTICAL PHYSICK.

Title, I. *Of the Method of Healing in General.*

THE Method *of Healing is an Art of Inventing by help of Indications, such Remedies as are apt to heal the Infirmities of Mans Body.*

There are therfore three things therin obſervable: the Indication, Indicant, and Indicatum.

I. The *Indication* is the Method of finding out from the Nature of the Indicant, the Indicated Remedy, which the Indicant is found to require, for the attainment of his End. And this is to be underſtood of the Indication habitually taken, viz. as it is in the mind of the Artificer. But if it be conſidered in its own Nature as it is in the Indicant, it declares nothing but a certain relation of the Indicant to the Indicatum, as of a ſigne to the thing ſignified, or an Antecedent to its Conſequent. In which reſpect *Galen* calls it the ſtrength of Conſequence.

II. The *Indicans*, is that which of it ſelf and its own Nature ſollicites the Phyſitians help, requires ſome profitable medium to attaine a good propounded, and affords a true curative Indication. Now this ought to be, in the firſt place, 1. Known to the underſtanding. 2. An Agent; and to be carried out to good by its natural Inſtinct. 3. To be in the body of man. 4. To be permanent, and not to have its eſſence in fiery or a momentary tranſaction. 5. That, inaſmuch as it is one, it indicate only one thing, that it indicate or hint the ſame by its own nature, and that as being but one thing, it can have but one Nature. Such a true and ſingle indicant, is neither the diſeaſe, nor its cauſe, nor any Symptom; but the ſtrength, virtue and faculty of a body cureable, or the virtue and faculty ſanative in a body ſanable, and that active, which is naturally moved to health, as to its perfection. *Not the Diſeaſe:* For that is the primary indicant to which al things are referred; the ſame is the Condition of Ends and indicants. But the Phyſitian does al for Healths, and not for the diſeaſes ſake. The indicant is permanent in the body. But the diſeaſe does not ſtay, without its own Homogeneal Cauſe. To the indicant we owe an helper, becauſe it indicates for its own ſake. But a diſeaſe not for its own, but healths ſake, &c. *Not the*

the Cause, for it is not every kind of helpe, but a curative help which we seek after. The Cause as it intends the corruption of mans body, cannot indicate or hint any thing but the corruption thereof. *Not the Symptom*, because it abides not. The *Forces of the Body are the only and primary indicant*; For you must first consider the Forces and strength of the Body, before you set upon the Cure. Lighter diseases are to be committed to Nature; dangerous ones and such as are towards their Crisis, are not to be tampered with; desparate ones admit no cure. The *forces* of the body must not be quite dejected and worsted, for then nothing is indicated; nor yet *lusty and strong*, for then they can do al of themselves. Oft times nature brings the morbifick matter through the middle of a bone, and makes an imposthume, casts out the sanies of the lungs, by urine or stoole, expells the stopt courses by the Eyes, the holes of the teeth the toes of the feet, &c. But they are the *tottering* forces of the body, which require help, and consequently indicate.

III. The *Indicatum*, or Remedy hinted, is that which ought to help the diseased body; safely without danger of a relapse or injury to the body; pleasantly without nauseousness and overmuch trouble; and quickly without any delay. Touching which observe, 1. That none reduces health by its own proper force, but by the Assistance of the inbread Heat, or nature it self, so that Nature does the work properly and formally, the remedy only as her instrument or Handmaid. 2. That it is not contrary to a disease, if it be simply considered as an Entity of such or such a nature: but it is contrary, as it is joined to an animate body, and actuated by nature. Yet not primarily and of its own nature, but obliquely and secondarily; both because it assailes the Disease with forces which are not connatural to it; also because vomiting is often cured by vomiting, looseness of the Belly by purging, stiffness of the whole body called *Tetanus*, by throwing cold water thereupon; and finally; because diseases are likewise commonly cured by their causes. So worms are killed by the pouder of worms, the flux of arterial blood by some drop of blood drunken, or the pouder of dried blood sprinkled on. 3. Their *Use*, in due quantity time and place, to which some ad the manner.

Title, II. *Of the Method of healing in special.*

Chap. 1. *Of the Additional Method.*

SO much for the Method of healing in general: the special Methods follow, and they are Additional and Abstractive.

The Additional Method, is that which supplies as much as is wanting in the powers of nature, by Augmentation and multiplication of the Virtue.

I. It is *Necessary*, because, seeing no disease happens but the faculty of the body is hurt: yea & the form of sickness consists in the inability to act, so that the said inability being supplied, the form likewise of the disease is reduced to the habit of Health.

II. The *Indicant* in this Method, is the Sanative or healing Principle in the Patient; which is neither the *Soul*, because that is alwaies like it self subject to no violence or hurt of sickness: nor the *Body*, because that is meerly passive, and indifferently disposed to sickness or health; but it is *the innate Heat*, which is rightly tearmed the true, proper, and immediate subject, wherein the curing faculty resides. For by it, verily, the parts do live and act. Therefore *Aristotle* cals it the spiritual Warmth, and implanted Heat, and *Hypocrates* terms it the Soul of Man, which is alwaies produced and removed even to his Death. This tempers and tunes the whol body, and moderates al the offices and ministeries thereof; reduces al excesses to a geometrical proportion, and such an equability as is convenient to Nature; and because it congregates and collects things homogeneal and separates things heterogeneal, therefore it ripens al crudities, seperates al impurities, and tempers and unites the dry with the moist.

III. *Indicatum*, the thing *Indicated* or Remedy in this Method, is somwhat that is like and familiar to the Indicant. Like wil to its like, and cleave to it, but a thing disagrees and separates from its unlike. Now this Remedy according to the definition of *Petræus*, is a spiritual Quintessence, that is to say, a certain most thin, and most subtile and delicate substance, as it were of a middle nature between matter and form, Soul and Body, and that different from the Elements and their Qualities, perfused with a Cælestial Heat, and underpropped with a primigenial moisture, furnished

furnished with many noble vertues, implanted in the first Creation by God, together with the form and seed, that it might be the proper and immediate Receptacle and Instrument of the form, by which the Individual, the temper of the Qualities assisting, might be preserved in a sound condition, and the Integrity of al its Functions, the Species propagated, &c. See what he saies in his inaugural dissertation, and my Father in Law *Vechnerus* in his Anacephalæosis typica Therapeutices Catholicæ, whose steps we tread in, at present.

Chap. II. *Of the Abstractive Method in general.*

The *abstractive* Method is considered, either in general or in special. *Considered in general, it teaches us to free the sanative Power of the Body from al Impediments, and to advance it into action.*

I. The *Indicant* in this Method, is the Nature of Mans body wanting health, hindred and provoked: from which the Causes and Diseases are to be taken away. The End is their removal.

II. In the *things indicated*, or Remedies taking away, we are to consider, the *Matter*, *Forme*, and *Use* or *Administration*.

I. *In respect of their Matter*, they ought to be commonly opposite to the Disorders, at least causally and effectively. And therefore there are so many differences and kinds of them, as there are of preternatural dispositions of the Body, according to the order whereof, they are elegantly distinguished, as I shal hereafter declare.

II. The *Formality* of these abstractive Remedies, is, their ability to assist the Healing Vertue of our bodies to shew it self in its operations. And they are the best which approach the neareſt to the Natural Constitution, and help the innate heat, or no waies hurt the same, or which according to nature do agree with a body that is in a capacity to be healed. Here respect must be had to the strength of the Body, and to such things as agree according to nature, with a body capable of healing, and restrain the latitude of the Remedy, to some *certain Subject* and Part affected. Touching the *Forces of the body*, observe, 1. That not only they are to be considered, as they are at present, but as they like to be after Medication or use of Remedies. 2. That such as are lusty, may bear stronger medicines. 3. That such as are in a feeble condition, cannot without great danger, endure medicaments that stir much; and that they require alimentary and balsamick Medicaments. 4. That being spent and exhausted, they must be repaired by balsamick medicaments. 5. That being overpressed with plenty of blood & humors, & therefore invalid, they require a sudden, and consequently a plentiful evacuation. *Concerning the Subject* we must examine the Nation, Sex, Age, Region, Air, State of the Heavens, the times of the year, and of the diseases. *Propriety of the Patients temper*, because it has many singularities in it, and there is no knowledge of singular things because infinite, it requires diligent inquisition, into the Education, Parents, Diet, use of the things called Nonnatural, Diseases, Medicaments. Natural Inclination, which carries with it, the Imagination, but especially the Customes of the Party under Cure. Touching the *Part*, observe, 1. That it requires a Remedy appropriate, or such an one, which respects the same by some propriety, to which consideration also vehicles belong. 2. That the principal parts especially be so handled, that they come not by resolution of their fibres and strength, to decay and perrish. 3. That their Qualities and Tempers are likewise to be observed. 4. Also their scituation, connexion, their convenient sensation which rejects sharp things, &c.

III. The *Use* or administration of Remedies is circumscribed in the Consideration of *Quantity*, *Time*, and *Place*. 1. Touching Quantity when the Question is, whether little or much; or, in what weight and dose: the *former* is hinted by the Quantity of the cause or disease. Therefore we must first exactly know what things are according to nature. So much must be taken from the body, as is superfluous; yet must we not over do. And we must know that 'tis alwaies more safe, in a doubtful proportion, to fal rather too short, than to exceed. Touching *this matter* take these rules: 1. Infirmities which have taken deep root, need stronger remedies, than such as are slight. 2. In a mild infirmity we must do al at once and suddenly, and so we must in an extream and dangerous sickness, because it quickly finishes its course, and quickly kils. 3. In indifferent and cronick diseases, we must endeavour to expel them by little and litle, and slowly; but we must withal take heed, least while we go about to quench a mighty flame with a smal Quantity of water,

we

we make the fire burn the faster. II. The *Time* respects, 1. *Seasonableness*, of which note, 1. That we must then act, when the Patient can best bear it. 2. That the motion of nature must be alwaies furthered, unless it be dangerous. 3. Turgent humors, must be drawn out the self same day. 4. About the beginnings and ends of Diseases, stronger medicines may be given, because then al the symptomes are weaker; in the state it is better to rest, because then al is at the height. 5. The Constitutions of the Heavens, that is to say, both the Conjunctions, Risings and Settings of the Stars, as also the great changes of times, especially in cronical sicknesses, are to be considered, &c. II. Method or good order in the plurality of things to be done. Here observe, 1. That disjoyned Diseases, do require distinct Remedies, so that they may be cured either severally, or both together. 2. That connex and complicated diseases, if they consent, may be cured either together or apart, and you may begin with which you please; and if they dissent, we must oppose both with a kind of mediocrity; if they partly agree and partly disagree, we must begin with that which, though the Cure of it do not help, yet it hinders not the Cure of the other. 3. In al diseases, whether they be disjoyned or conjoyned, respect must be had above al things, both of that which urges, and of the Cause or Concomitancy; so that we must first cure that which urges most, and that upon which the rest depend. Under the Motion of Causality or Concomitancy come, both al *Impediments*, without the removal whereof no Cure proceeds; as also the *Foments*, upon which the other hurts, being linked and chained together, do depend in their production. Now that is said to *Urge*, which exceeds the other hurts of the body, either in magnitude and malignity, or in the vehemency and celerity of the the hurt they do. III. *Touching* the Place, these things are observable. 1. That the inclination of nature and conveniency of the Vessels must be observed. 2. That the matter must be voided the neerest way, by ignoble parts; by a natural channel; and by wayes cleer and direct. But of these things, God-willing, I wil treat most methodically and accurately, in my Syntagona.

Chap. 3. *Of the abstractive Method in Special, and first of the taking away of Causes.*

Article, 1. *Of the taking away of Causes which offend in Quantity.*

THe *Taking away of Causes respects both Humors offending in Quantity, Quality, Motion and Place, and likewise winds themselves*: of which notwithstanding, they are not so exactly to be considered and by themselves, but that they may sometimes be complicated together.

The taking away of Causes which offend in Quantity, is performed by Blood-letting, Frictions, Fasting, Bathing, Hæmorrhoides, Monthly Courses, Scarification, Cupping-glasses, and Horse-leaches.

I. Touchig *Blood-letting* these things occur considerable. 1. *Whether it is to be done or no.* I. A Vein is *not to be opened.* 1. If the forces of the body languish, as being changed by Fevers, long diseases, distemper of the ambient air or other things, some venemous quality, immoderate evacuation of Humors, Labour, Grievous Pain, and passions of the Mind. 2. If a Woman be sickly, and of a whitish color. 3. If it be a child, because its heat is apt to dissipate. 4. If the Patient be over fearful. 5. If the disease be in its highest vigor, which attains the Crisis. 6. If a crude distemper afflict, without fault in the blood, and it may otherwise be amended. 7. If crude juyces abound in the whol Body, especially in the Summer time, the stomach being weakned, the body soft, and a fever be joyned. 8. If a crude and cold juyce afflict the mouth of the stomach, whence an heart-burning proceeds, by reason of the vicinity of the Heart. 9. If boyling juyces abound in the whol body, which waste the Spirits, and being carried into the stomach Cause a deliquium. 10. If venemous diseases afflict the body. 11. If a critical Evacuation were sufficient. II. *A vein may be opened*, 1. If the forces of the body languish, being oppressed. 2. If the disease be great, which afflicts vehemently, for a short time, with a feverish heat and working of the blood. 3. Yea in a person of seventy years of Age, provided the pulse be considerable, and the nature of the disease, and plenty of blood require the same. 4. Also in a Woman with child, both in the first and last months,

if shee have an accute disease. II. We are to consider *at what time a vein is to be opened.* Touching which observe. 1. That such diseases as are caused by a plethora, in them a veine must presently be opened, at any hour of day or night, before it transfer it self into some noble part and the strength of the body come to languish. 2. In feavers it must be done, in the times of Remission and Intermission. 3. If the greatness of the disease require not hast; the best time is to open a veine in the morning, an houre after the patient has been awake. 4. When we would reiterate blood-letting for evacuations sake, we must do it the same day. III. *How much blood is to be taken*; I. where observe. I. *Blood may be more freely taken away,* 1. When the Forces of the patients Body are lively. 2. From Persons of a rosey-color, of a thick and yellow habit of body, haveing large veines, and being formerly accustomed to blood-letting. 3. In a vehement and great disease, when the forces are vigorous, we may let blood til the patient swoun, howbeit we are not ordinarily to stay so long; but when the color of the patient changes, and his pulse growes weaker, and when the blood runs with a lesser streame than before, (unless fat or some other gross matter hinder it) then we must cause it to be stopped. II. *It is more sparingly to be diminished,* 1. In an impure plethora. 2. In a melancholick plethora; because, it is not so hot as to require cooling. 3. In a flegmatick plethora, because the humor being exceeding cold, is made more crude by blood-letting. 4. In children and old people, specially in the Summer. 5. When the forces are discomfited, and the disease is urgent: for then it must be taken away by peecemeal at sundry times.

II. *Frictions, Sweats* and *Baths,* do lessen the quantity of humors: because they raise that which dissipates and dissolves the substance of our body.

III. *Tasting* does the same, because nothing is restored in the Room of what is dissipated, through restraint of food. Because it equally evacuates the whol body, it ought to be used in an universal cacochymia. Because it operates too slowly, it is unuseful for a sudden evacuation. Also old persons can better beare it then children. Cholerick and leane persons cannot endure it long.

IV. External *Hemerohoides* or a portion of the hemorrhoidal veines, are used to diminish plenitude, and for the diseases of the kidnyes, womb, back and hip. They must be opened by frictions, Leeches, Fig-leaves, rough cloaths, Juyce of Onions, Centaury &c. The internal are opened by clysters and sharp suppositories, to cure hypochondriacal distempers, of the Liver, spleen and Mesentery.

V. The *Courses* are to be moved, then when naturally they use to flow.

IV. Cupping-glasses, are applied when blood is not very plentiful in the Body. Their greatest use is in Revulsion. They are conveniently fastened to the Armes of women with child. If their use respect the whol body, they must be applied to the inferior parts; if they respect any part they must be applied to the same part.

VII. *Scarification,* if it supply the place of blood-letting, it is practised cheifly upon the thighes, yet sometimes upon the Arms and Back. and so it revells from the Head. If it be used upon its own account, it is to avoid a malignant and sharp matter: which is practised in the Gangren and in Callosities, or Calous disorders.

VIII. *Leeches,* if they are applied to evacuate the whol body, they must be applied to the great and prominent veins which are in the Armes and thighs. In women with child they are applied only to the Arms.

Article, 1. *Of the Removal of Causes which offend in the Quality.*

Point, 1. *Of alteration,*

The Removal of the Causes offending in Quality, consists in Alteration, Purgation, Vomiting, Urining, and sweating.

Alteration is the contemperation of Causes offending in quality, by convenient remedies.

And it is so many fold, as there are causes or humors. And therefore.

I. *Choler,* because it offends in Heat and drouth, needs cooling and moistning; and if it be withal thick, it needs incision and attenuation; if thin, incrassation or thickening. See the Medicaments before. Now for their more convenient use, we must observe, 1. That Infusions are best in the water, so that the decoction be made til a third part of the liquor only remaine. 2. If a flux happen to rise we must forbear the use of sharp medicaments, least they bite and vex the Gutts; yet may we use syrup of red Corants, Barberies.

II. *Flegm* because it is cold and moist, requires heating and drying: and if it be withal thick and clammy, it needs cutting and attenuation. The Medicaments we formerly recited

recited. Touching their use observe these rules. 1. Abstaine from such as are very hot at the beginning, least the matter being melted should swel with greater motion, and the thin parts being consumed the thick should remaine behind. And therefore they ought to be put green into decoctions: in their defefect, cold things ought to be mingled with the dry ones. 2. Strong openers ought to be avoided in a woman with child. 3. Because where flegm is troublesome there the stomach languishes, to those that are not accustomed we must give them their drinks actually hot. 4. If you would have the remedies penetrate the most distant parts of the body, and carry their virtues with them; they must be given boiled or beaten, in broath of Guajacum, with a great Quantity of Liquor.

III. Melancholy, in which we must abstaine from immoderate use of Vinegar, especially if the matter be more fervent than ordinary. For black humors do ferment and *swel* by the admixture of vinegar. And therfore if we are to use it, we must give Oxymel with a decoction of Citron peels or some such thing.

IV. If divers Humors are mixed together, we must cheifly set our selves against those, which are most active, not quite neglecting the rest, whether within or without the body. Which shal be done when the veins are free from obstruction, al the passages of the body open; the humors not far from a temperature, and the noble bowels free from obstruction. In opening syrups Heurnius observes this order 1. First syrup of vinegar is given; then syrup of the two roots without vinegar, then the said syrup with vinegar, after that syrup of the five opening roots, then Syrups of Byzantinus so called without vinegar, and lastly the said syrup with vinegar.

Point, 2. *Of Purgation.*

Purgation, is a convenient drawing out of Humors offending in quality, but yet prepared, out of the Body, by medicaments which purge by way of stoole.

I. Those *Humors* are either smal in quantity, or plentyful, and either they cause a fever; which is vehement or weak, or they cause no fever; or they wander through the whole body with vehemency of symptomes or not.

II. By *Coction* in this subject, we do neither understand that which is called pepsis, and is a changing of the thing to be concocted into the nature of the Concocter: nor is it that coction which is opposed to crudity which is the indigestion of aliment, in the stomach, liver and veins; or humors having passed the mediocrity of Coction, as in yellow and black choler; nor the redundancy of cold humors: but that kind of Coction which is called Pepasmos, and is nothing but the reduction of humors disagreeing in substance and qualities, corrupt and putrid, unto a similitude, and the separation of the corrupted from the uncorrupted; which is performed by the Efficacy of the Natural Heat, separating the profitable from the unprofitable. Yet is it not necessary that al humors be concocted. For there are humors which are not in a capacity of concoction, being severed from the concoction of the blood, as in Catarrhs, the Colick, Flegm, Hydropical water, and such as offend by some hidden Quality.

III. *Preparation of Humors* is twofold: 1. To Coction, which is performed by removal of all impediments, by diminishing the Humors, augmenting the natural Heat and repairing the forces of the body. 2. To *evacuation* which is done when the Humors are made fit for expulsion, such as are clammy being cut, and the thick attenuated, the waies being made free and open, with clysters, emollient broaths, and the like.

IV. Touching *Medicaments* these things are to be observed. 1. That they are either moderate, which reach only the inferior parts: or vehement, which penetrate beyond the liver and into the habit of the body: that they are either catholick or universal, by which al humors are purged together; or such as draw some particular humors, and they Choler purges, Flegm purges, Melancholy purges, Water purges. 2. That they ought to be addicted and accommodated to the part to be purged. And truly, Agrick is appropriated to the Head, Cassia to the breast, Aloes to the stomach and Gutts, Rhubarb to the liver, Sena to the spleen, Hermodactyls to the joints. 3. That they ought to be of equal pace in operation, that one do not prevent and out-run another; and that they must be mixed with odoriferous medicaments of thin parts, least they overthrow the stomach, and that wind may be dispelled: yet must not these odoriferous ingredients be in so great quantity, as to move urine. 4. Alwaies to abate somewhat of their strength 5. That they act by help of the expulsive faculty so as to disturbe and jumble the whole mass of Blood, then to sparate the humors, whether any part of their substance be drawn into the veines, or they act only by a vapour sent forth.

V. The *Conveniences of Purgaton*, viz. Whether or no? How much? When? After what manner?

I. As for *whether or no*, observe, I. *That you must not purge*, 1. If there be paucity of Humors, 2. If the Body be sound and of a good temper. 3. If the patients purge only by the smel of the Physick. 4. If the forces of the Body are weake by way of dissolution; and then the Artery pressed with three fingers does not fly up; or one finger being removed, it is not felt by the next; or there are more little than great pulses, more languid than vehement, more slow than swift. 5. If the stomach be weak, in which case a Clyster is convenient. 6. If there be plenty of crude humors; because gripings are raised, and little to speak of evacuated. 7. If there be an Impostume in the Gutts. 8. If the midrif be stretched, raised, burning, inflamed, and the Urine fiery. 9. If the Member from whence you intend to purge, be troubled with some raging pain. 10. If the Belly be bound & no clyster given. II. *You must purge*, 1. If there be gripings without a fever, heavines of the knees, and paine in the Loins, 2. If the matter, conceived in the member be moveable 3. If the sick be hard to vomit, and moderately fleshy. 4. If nature do not incline to a Crisis. 5. If the foregoing conditions are absent. III. *You must warily purge*, such as are of an healthy and pure body, idle, apt suddenly to faint away, such as are frampold and hard to please, Children, old Men, women, such as easily vomit, such as are leane and of a thin body, and those that are of a cold and moist constitution.

II. As for *how much*, observe. 1. That you must alwaies purge rather with a little than a great dose. 2. That the parts in the Region of the Belly, require lenitives, in the venous or veine-region, moderate purgatives, those in the habit of the body, vehement ones. 3. Strong forces of the Body, with great abundance of Humors, does prohibit a medicine, which purges plentifully and tumultuously, least the spirits be dissipated; but when the humors are not so plentiful a strong medicament may be given. 4. That the Bodies forces being weak by repletion, do require smaller purgations, the remaining Humor being drained out by gentel repeated Lenitives, 5. That the forces languishing through resolution of the Body, do only require gentle and partial or repeated purgations. 6. Women with child in the seventh month must be gently purged, least the child being heavy come by strong agitation of the medicament, to be cast downward. 7. Old persons, because with tract of yeares their benigne juyces are exhausted, cannot bear strong purgers. 8. Nor yet children: because they grow and their humidities do easily evaporate. 9. Men of rare or thin texture of Body, if they be strongly purged, they suffer detriment thereby. 10. *Leane* persons, because they have large veines are easily purged. 11. Long-legged persons, are easily purged. 12. Such as live hardly, as labouring Country-people, are not moved with a gentle purge. 13. Melancholick persons, whether they be so by nature, diet, or sickness, because they are for the most part of good strength without danger of weakness, and have their bodies solid and ful of juice, must be strongly purged. 14. But stammerers must be gently purged, because they are liable to a loosness. 15. When only the stomach is out of frame, gentler purgations must be used, least more il humors be drawen to the stomach. 16. Great plenty of Humors, profoundly situate in the body, do need more plentiful purgations either jointly or severally. 17. Where we need more evacuations, we must begin with the most gentle, 18. We must then use strong purgations, when gentle wil not do the deed.

III. Touching the *quando, or when you must purge*, take these Rules. 1. That women with child ought not sooner to be purged then when the child begins to stir, & that when the Humors work. Women in childbed, must not be purged til their month be over. 2. In Peracute diseases, If the matter be unruly and in motion, you may purge the very same day, by reason of the tenuity and fluxibility of the matter. 3. In the fits of intermitting diseases you must abstaine from purging, in the time of Remission and Intermission, you must purge, 4. In long-lasting diseases, we must not purge before the matter be attenuated and made fluent, and the passages opened. 5. In the Summer time, before day; in the winter give your purges in the day. 6. The juyces which are in motion, or wil shortly be in motion, must be purged, to prevent the Encrease of the disease, and that the part may not be marred by over abundance of the juyces. 7. In the Dog-days and immediatly before you must not purge; For the bowels Heated by the violence of the Season, do easily entertaine a fever.

IV. As for the question, *after what manner*, take these following rules. 1. To every Humor you must apply its proper purgative. 2. To near parts, and in Melancholy cases, liquid Medicines are good: in remote parts, you must use solid ones, which stick long in a place, and spread their virtue more effectually

effectually. 3. Vomiting, which is wont sometimes to arise, after the taking of a purge, is staied by stomach-strengtheners, or cupping glasses applied to the navel, or with juice of pomegranates, in such as are of a weak stomach and hot liver, it is prevented by holding an Eg to the throat, or putting toasted bread to the nostrils. 4. Loathing of the stomach is taken away by a linnen cloath wet in Vinegar put upon the Cup, or by washing the mouth with juyce of pomgranates, before the potion is taken, 5. A purge which causes griping, is mitigated, by a clyster lenitive, or a potion of the decoction of Mastich, or with lukewarm water. 6. In persons abounding with melancholy, Catharticks ought to be mingled with lenitives and moistners. 7. Purgers, if they be given with barly water, do work little or nothing by reason of the absterfive faculty thereof. 8. Super purgation is stopped with new or old treacle, & a grain or two of opium, mingled with three ounces of wine. Also with a crust of bread steeped in vinegar, and laid upon the stomach. 9. In the summer, purges are to be given with coole things. For the summer Heat calls the juices abroad, which the Medicine presently draws away. 10. Winters cold, because it wil hardly let the humors go, the habit of the body being compacted; declares that preparatives are to be premised, and cutters mingled therewith. 11. The Aire of the patients chamber, if it be too hot, it stops the operation of purging physick, by drawing the Humors into the circumference of the Body. 12. A Lenitive or gentle medicine must be taken a little before or after meat, least nature abuse the same by turning it into Nutriment. 12. After a purge is taken, the Patient must rest, that nature may embrace the medicament: and then a little motion wil do wel, to melt the humors, and that the expulsive faculty may be provoked. Some Physitians bid their patients sleep a little after a strong medicament, but not so after a weak one. 13. When you give a strong medicament, let the patient eat, three houres after the Physick begin to work: when you give the strongest purges of al, let the patient pass over the time of its operation without dinenig, for such medicaments need no spur. 14. If the patient cannot hold out, but dureing the purgation, be so hungry as to seem weakned thereby, let him drink presently after the taking his medicament a draught of broath, or bread moistened in wine. But thirst declares that the purgation is finished, by reason of some Consumption of the roral moisture, provided it be not provoked with a light Catarrh, or the stomach be not naturally inflamed, and there be no suspician of any inflamation from the Medicament. 15. When the evacuation is ended, the Broath of a pullet may be given with sugar, to wash the Gutts.

Point, III. *Of provocation of Urine, Vomiting, and Sweating.*

Diuresis, or Urination, is the drawing of Humors out of the Body by diuretick or urine, forceing medicaments duly administred.

You shal duly administer them. 1. If you give them in such diseases, as are evacuated by little and little. 2. If you give diuritick medicines properly so called in thick humors, those improperly so called in thick and adust ones, which by that meanes are made more fluid, taking heed of dry diseases, such as the Consumption, Madness, &c. 3. If you give them not in bodies ful of humors, til the humors have been first abated by purgation, least by their thickness and plenty, while they rush headlong into the narrow passages, they come to obstruct them. 4. If you give not sweet medicines to women, least they be drawen to the womb. 5. If the passages be neither inflamed nor exulcerated.

II. *Vomition is the ejection of Humors upwards by vomitory Medicaments, conveniently given and applied.*

Those *Humors* are, all cholerick, flegmatick and melanchollick humors, but those especially, which either reside in the Capacity of the Belly, or are contained in the spleen, hollow side of the Liver, or the Pancreas [Sweet bread] such as are thin and chollerick and of their own accord tend upwards, which is perceived by bitter belchings, paine, biting, and heavines of the Midrif. Also some vomitings empty the whol body.

Vomitory Medicaments procure vomiting, either because they have an inclination upwards, or because they do as it were float upon the stomach and oppress the same, or because they loosen the upper orifice of the Stomach.

The Conveniency of preparation and application Requires; 1. That they be given to persons leane by constitution and habit, but not by sickness; provided they vomit easily, namely that they have a large breast, firme Head, and use not to spit blood, nor are in a Consumption, nor are subject to

suffusions

suffusions in their Eyes, or to frowning or fainting fits. 2. That you be not hasty to give them to old people. 3. That you give them in the Summer, because then the Humors are carried upwards. 4. That the Vomit be so much the lighter by how much the Disease is more vehement; and so much the stronger by how much the part to be cleansed is far situate in the body. 5. That no oyl be used in Feavers, because of the Relaxation of the stomach whose strength ought to be preserved in Feavers. 6. That you give them before meat in thin and cholerick persons; after meat in flegmatick people, because flegm sticks fast in the body. Observe more particularly concerning Helebore. That the body be free from al feaverishness. That the Patient be accustomed as it were to vomit for three, yea, & for twenty daies before, that he may not vomit to purpose, til the morbifick matter be digested. That the Hiccupping which is wont to arise in the middle of the vomitings with Hellebore, be stopped by giving the patient Mul-sack with Rue boiled in it. That it be given in a convenient Quantity. For a lesser dose than is fit, agitates the juyces, and disturbs nature, to no purpose.

III. *Sweating is an Expulsion of Humors by the pores of the Skin al the body over, caused by sudorifick Medicaments conveniently administred.*

Touching the *Medicaments* observe. That they have a greater tenuity or subtilty of parts, than Diureticks have. That they cause swear, by turning the Humors into vapors, and thrusting them into the outer parts of the Body. That cold sudorificks work by an occult Quality.

Their *convenient exhibition*, is regulated by these precepts. 1. That cholerick persons sweat not without trouble and inconveniency, because of the overgreat dissipation of their natural Heat. 2. Humors cannot be conveniently forced out of the Cavities of the stomach, Guts, Wombe, and the like, into the habit of the body. 3. The forces of the body being weak, are more impaired by sweating. 4. In old and cold diseases, as distillations, Palsies, Sciatica, Pains of the Joynts, Sudorificks are exceeding good. 5. They are to be given after universal purging, in the declination of a disease. 6. They are most of use in pestilential Diseases, nor is there then so much need to observe, either the time of the disease, or the strength of the Patient. 7. The Humor to be evacuated must either be thin of it self, or it must be made so. 8. Plenty of morbifick matter must not be assailed by sweaters, least being carried unto the Skin, it shut up the smal pores thereof, and either breed or encrease putrefaction.

Article, 3. *Of the Removal of Causes offending in Motion.*

Point, 1. *Of Revulsion and Repulsion.*

The taking away of causes offending in Motion, contains under it *Revulsion*, *Repulsion*, *Derivation* and *Interception*.

I. *Revulsion is the convenient aversion or turning away of matter flowing into some part, into a part quite contrary.*

I. This Aversion is caused, either by Reason of Vacuum, by blood-letting, cupping-glasses and Horse-leaches; or by reason of Heat and pain, by dolorifick ligatures, strong frictions of the opposite parts, Clisters, Suppositories, hot washing, and vesicatories.

When I say that *Aversion* ought to be made to the *contrary part*, Observe. I. *That it must be made to remote parts*, to difference it from derivation, which is to near places. Where note, that those parts besides contrariety must have rectitude of scituation, not precisely mathematical but natural, in respect of the fibres and filaments of the Veins: also in respect of the fibres and veins which are remote from the part affected, and have communion with the part sending; also following the rectitude of the Diameter and scituation, in longitude, latitude, and altitude. II. *That the Contrariety aforesaid is*, either in respect to the whol body, as when we revel from the Head to the Thighs or Legs, which is done in universal revulsions, from the right side to the left, or from the left to the right, which is termed particular revulsion. III. *It ought also to be to its own beginning, if the same be known.* So in the inflamation of the right Leg, we cut the left. The parts above the * Claviculæ being affected, if it be already a Disease, and the matter flow in, the Cephalick Vein must be opened; if it be yet to come, the vein betwixt the Thumb and fore finger must be opened. The Parts between the Kidneys and Claviculæ being Affected, the Basilica Vein must be opened; if there be danger, its branches betwixt the ring finger and the midle finger. Both parts being affected, both above and below the Claviculæ,

* *See Riolanus Anatomy in English.*

Claviculæ, open the Vena Mediana. For the Kidneys you may take your choice. The Ham-Vein, Ankle-vein and the Vena Saphena, exonerate the parts below the Kidneys.

Revulsion wil be fitting and convenient. 1. If it be performed at the beginnings of fluxions unless they be lasting. 2. If by convenient places, least the mater be drawn through some noble member. 3. If the pain of the part affected be first mitigated, and the violence of the Drawing be less.

II. *Revulsion, is a convenient rejection of the Influent humor, by repelling Medicaments.*

The Rejection wil be convenient, if you consider, *Whether or no, How much, and When.*

Touching *whether or no*, observe. That Repulsion is not to be used. 1. In the noble parts. 2. When the fluxion is near a principal part, least the matter being repelled, should be carried into the noble parts. 3. In parts which are scituate too deep in the Body. 4. When a venemous and malignant matter afflicts the Patient. 5. When the matter is thick and clammy, least it become thicker and unapt to to be resolved; when it is deeply seated, as in the Sciatica, least the blood be forced out of the neighboring and ambient muscles, deep into the connexity of the parts. 6. In case of a wound inflicted by a beast. 7. When the body is ful of a redundant humor. 8. The humor being already impacted into the Part 9. When there is a vehement pain. For then astringents, especially if strong, do cause the pain to encrease, by exasperating the tunicles, and by keeping in biting, sooty vapors, and sharp humors. 10. When Nature acts aright, and drives the matter critically into some part. 11. When the bowels are affected, as in an impostume arising in an Emunctory, least a symptomatical translation of the matter should happen.

Touching *How much*, know, 1. That the tender parts wil not bear over strong repellers. Therefore in the Eyes we use only brest-milk, and Rose-water, in which sometimes poppey seeds are boiled, and the pap of Apples, &c. 2. In the Augment, repellers must be mixed with discussers, lest the humor grow hard, or be augmented, by stopping the pores of the Skin. 3. That cold & moist medicines are used, when the humor is thin & is seated in the surface of the body: when fluxions happen through the over hotness of the parts, and great heat or vehement pain afflicts the Patient. 4. Astringents are used, when fluxions are by debility of the parts, and there is no vehement pain. The *time* of Repulsion, is the Beginning of a disease.

Point 2. *Of Derivation and Interception.*

Derivation is the convenient aversion of an humor falling into some part, unto the neighboring places.

That humor to lies upon some part, that it is not yet shed forth of the Veins into the spaces of the part, but fluctuates up and down in the Veins.

Touching the *Conveniency* hereof, note, 1. We must not derive before the plenitude of humors be abated. 2. So much must be taken away, as the Patients strength wil bear, and the disease shal require; which may be known by the change of color in the Blood. For so long it must be taken away, til it flow redder and yellower, til instead of red it come lead-colored. For the blood being flegmatick in the whol body, wil be redder than ordinary in the side where there is an Inflamation: and that blood which is redder than ordinary in the whol body, wil there through adustion be changed into black. 3. It must be practised, before it be fastened in the part. 4. It is done by opening a Vein: by Nole-medicines and sneezers, if the matter be in the Brain. 5. That the Communion of the Veins with the part affected must be observed. So in a Phrenzy, the Vein of the Forehead must be cut; in a Mania or madness without a Fever, the Veins under the Tongue; in pains of the hinder part of the Head, cupping-glasses are fastened to the shoulders and shoulder-blades. When the Ears are inflamed, and when there are risings behind the Ears, a vein under the Ear: in hot diseases of the Gums, Jaws, Lips, in the Squinzy, the two Veins under the Tongue. The Armpits and Shoulders being inflamed, the Vein of the Head must be opened; the Womb, that of the Ham; the Legs, that of the Feet.

II. *Interception, is a shutting up of the passage of Humors into any part, by convenient Medicaments.* Those *Medicaments* are Repellers. For Interception differs not from repulsion, save only in the place of application. Repellers are applied to the part inflamed: intercepters are applied to the parts and waies, through which the Humor is carried. They are likewise called Defensives. Amongst which fatty and oily things are suspected. For

they

they soften the parts, and if they stick on long, they heat the same. Therefore it is better to mingle intercepting pouders, with Rose-water and the white of an Egg.

Interception is then conveniently administred, 1. When the Intercepters are applied to the parts that have least flesh, in which the passages are most large. 2. When we apply such as are strong, where the habit of the Body is hard, the vessels large, and the season hot, which loosens and widens the passages; also where the Humor flows violently into the part. 3. If in contrary Cases, we use the milder sort.

Article, 4. *Of the Removal of Causes offending in place.*

Point, 1. *Of Softening and Discussing.*

The Removal of Causes offending in place, containes *Emollition, Discussion, Suppuration, and Attraction.*

I. *Emollition is the alteration of a thick & hardened Humor by softening Medicaments.*

An Humor is hardned, either by extraordinary or moderate driness; or by plenitude, or by Congelation,

The *former is altered* by things moderatly hot and moist, least the force of heat should dissipate the Humor; the *latter* by opening the pores with an aiery moisture: the *last* by things hot and moderately dry.

Medicaments exquisitly Emollient, applied to the principal members or parts near them, do bring the life in danger.

II. *Discussion is a convenient dissipation of an humor sticking in some part, and softned, by insensible transpiration, caused by diaphoretick Medicaments.*

'Tis called *Digestion* and *Resolution.* I added, and softned. For humors hardened cannot be discussed, unless they be first softned.

To *convenient Dissipation,* is requisite. 1. That it be undertaken, before the Body be evacuated. 2. That it be not used in such as have hot Veins and Livers. 3. That Dissipaters be used in the State and Declination, and that in the Augment they be mixed with Repellers. 4. That they be not biting, nor vehemently hot, lest the thinner parts evaporating, the thick become dryed and hard as a stone.

Point, 2. *Of Suppuration and Attraction.*

I. *Suppuration is the convenient mutation of an Humor that cannot be discussed, into Quittor, by ripening medicaments.*

The *Conveniency* hereof requires. 1. That it be chiefly practised when Blood offends; for Blood is best changed into Quittor: choler and melancholy hardly, by reason of that degeneration, whereby they raise Cancers and malignant ulcers. 2. That it be not rashly practised upon the internal Parts. 3. That among external parts, it be not practised about the Joynts. 4. That it be not overmuch or overstrong: otherwise it wil dispose the part to a gangrenous Putrefaction.

II. *Attraction or drawing, is the convenient Motion of matter infixed into a part, by drawing medicaments.*

These *Medicaments* are either *more gentle,* which are termed Rubifyrs; or *more strong,* which are Bladder-raisers, Cruft-procurers, and Caustick.

The Rules of Conveniency respect *Caustick,* and Vesicatories or *Bladder-raisers.* In *respect of the former.* 1 We must not come to Caustricks, before we have tried Rubifiers and Vesicatories; for Caustricks take something from Nature. 2. That they be then used when there is danger least the part should perish, and especially when there is fear least abundance of matter should putrefie the Bone. 3. That when there is need of little burning, we are to use an Instrument of Brass; and an Iron one when we are to burn much. 4. That Consideration be had of the Age, Strength of the Patient, and the swellings whereunto they are applied; for many instead of the Kings-Evil swellings, have burnt the jugular Veins. *In respect of Vesicatories* it is requisite, 1. That they be not applied to accute diseases, not to external Parts exulcerated, nor to the region of the Lungs when they are exulcerated, because by them the ulcers are exasperated, or to gristley parts, and such as are bare of flesh, because by burning they grow black. 2. That after the flesh is swelled, the Cicatrized Part is become black and blew, the Patient is pained, we desist, least the part be stupified. 3. That before they be laid on, the place be rubbed til it look red.

Article, 5. *Of Expulsion of Wind, cal'd Carmination.*

Carmination is a convenient dissipation of the Winds arising in mans body, by carminative or Wind-expelling medicaments.

That this dissipation may be conveniently affected, medicaments discussing winds, ought not to be administred before the matter be diminished; otherwaies more flatulencies wil be raised, by rarefaction of the matter.

THE

THE FIFTH BOOK OF THE IDEA OF PRACTICAL PHYSICK.

Touching the Removal of Diseases.

Title, I. *Of the Diseases of Similar parts and their Cure.*

Chap. 1. *Of the Method of knowing and curing distempers without matter.*

SO much may suffice to have spoken of the methodical removal of Causes, which ought to be handled a part from the particular consideration of the causes themselves: the general method for the removal of Causes follows, which must of necessity be jointly handled, with the prime differences of the diseases themselves; seeing it comprehends, not only the diseases but the Causes also, signs and differences of the diseases.

The primary and essential differences of diseases, are those whereby they are divided, into *Similar, organical, common.*

Similar diseases, are either of *distemper*, or *of hidden Qualities.* A *distemper*, is either *without matter* or *with matter.*

A distemper without Matter, is a declination of the temperament of a mans body, from its natural constitution, induced by certain causes proper for such an Effect.

By temperament you must not understand, that which is called *temperamentum ad pondus*, wherein there is equal proportion of the qualities: but that which is termed temperamentum *ad justitiam*, wherein the qualities are not in equal, though in a wel ordered proportion, which is convenient for some kind of actions. 2. Understand temperament both *simple* and *compound.* 3. The temperament of Mans body not only as it is *mixt*: but also and principally, as it is *liveing*, whether it be inbred or influent.

The *Signs* are taken from the differences.

The *Causes*, are principally external; of which in the same place.

The Cure is performed by *Alteration*, if you precisely consider the distemper it self, but this disease does not long last without matter.

Tis divided into four sorts.

I. One is *hot*, in which heat abounds. Tis *known* from such things as may exhalt and encrease sweat, and from such as are the Effects of Heat so encreased. It arises cheifly from five things, viz. Motion of the Mind and Body, Putrefaction, The nearness of some hot thing, the mixture of somthing that is hot, and stoppage of the Body. 'Tis *cured* with *cooling* medicaments, whether *simple* or *compound*, *taken in*, or *outwardly applyed*. Where we observe. 1. That alterations consisting of heat and cold, are most easily cured. 2. That an hot disease in a Body which is naturally cold, must be vanquished, by remedies that are strong. 3. That cold medicaments have four degreers.

II. Another is *cold*, in which cold exceeds. 'Tis *known* from causes which induce cold, and symptoms, which follow the same. It *arises* from such things, as either are of their own nature cooling; or suffocate the innate Heat; or overwhelm, or dissipate the same, or withdraw its nutriment. The *Cure* is undertaken, by heating its medicaments, first such as are *more gentle*, afterwards the *stronger* sort. See the Medicaments in the Institutions of Physick.

III. Another is *moist*, when moisture overcomes. It is *known* by the antecedents and consequents. It *arises* from the neighbourhood of moist things, and which hinder the transpiration of most evaporations. 'Tis *cured* by *drying* Medicaments.

IV. Another is *drie*, in which dryness prevailes. 'Tis *known*, by former kinds of signs. It springs from contrary Causes, viz. Alteration of dryers, and overmuch resolution and and paucityof aliment. 'Tis cured by *moistners*.

V. Another is *compound*; that is to say, Hot and dry, or Hot and moist; Cold and dry, or cold and Moist. Of which we need not to say much. For it may easily be gathered what it is, and how to be cured, from the simples.

Chap. 2. *Of the diseases of Distemper with Matter.*

A Material distemper, is the irregularity of the natural temper of Mans Body, by the presence of some morbifick matter.

The *Signs* wil be known from the following differences.

The *Cause* is, a preternatural Humor, and that is. 1. Either *collected by little and little*, either through weakness of the part, or fault of the Nutriment. 2. Or *affluent*, either by attraction: or by reason of transmission, either from the whol body, or from some certaine parts.

The *Cure* is perfected. 1. By *alteration* with Contraries, if we consider the disease, 2. By *evacuation*, if need be, and that by bloodletting, if a Plethory be offensive: by Purgation if Cacochymia or badness of humors offend; by sweat, if the matter tend to the skin: by vomit, if to the upper parts: by diuretricks, if to the Urinary passages. III. By opposite diet.

'Tis divided into so many distempers, as the material.

I. One sort springs from *blood*, or a *plethorick* Constitution of Body, when such humors as are fit to nourish the Body, abound &c. 'Tis knowen by weatiness &c. It *arises* from good Nutriment &c. 'Tis cured, I. By *Bloodletting*, II. By alteration with coolers and moistners, especially such as are appropriate to the Liver. 'Tis divided two manner of waies, 1. One sort is from an *exquisite plethora*, to which al the precedent notes agree. 2. Another is from a *bastard plethora*, wherein the cure requires purging likewise, 3. Another springs from a *plethora advasa*. Another from *a plethora advires*, of which we spake before.

II. Another kind springs from excrementitious choler, which is hot and dry. 'Tis *hardly* cured, if it proceed from the yellow choler. *Never* almost, if it proceed from leek colored, eg-yolk-colored, or verdigreise-colored choler &c. The Cure is *performed*, 1. By *alteration* with cooling and moistning medicaments, and if it be very thin, with thickness; if thick, by cutters. Among the former the cheif are, *Stalks of Italian Lettices*, flowers of water lillie, Porslain, Plantain, Tamarinds, Jujubees, red poppy, among the latter, the cheif are, roots of *Cichory* & *Dandilion*, *Sorrel*, & such things as are made of these, *Spirit of vitriol*, *Salt*. 2. By *evacuation*, either by bloodletting, when cholor is mingled with the blood, or by purgation by stool, with cholagogues. The cheif *cholagogues* or choler purgers, are *Rhubarb*, which is neither to be given alone, because it is subject to fume, nor to such as are troubled with the strangury; *tamarinds*, aloes rosata, which is taken only in pils. *Syrup of the*

the flowers of Acacea, of *Roses solutive*, which must not be given to women with child, *Pils of Ruffi* &c. By a cooling and moistening diet.

III. Another is from preternatural *flegm*, which is cold and moist. 'Tis *cured*, I. *By alteration* with medicaments hot and dry, attenuateing and cutting. Where note, that we must at first abstain from very hot things, lest the matter being dissolved, should swel with greater motion, and that the thinner parts being consumed, the thicker should remain; We must avoid strong openers in a woman wth child. The strongest of all are *Lignum guaiacum*, *China root*, *Sassafras*, *Salsaparilla*, *and Oxymel Scylliticum*. Hot stomach medicaments are to be interposed, because the stomach languishes through overmuch heat. II. By *evacuation* with *Phelgm purgers*. The cheif among those indifferently strong, are *Mechoacanna*, of which Lozenges are made; it works most effectually given in pouder; *Carthamus seeds* and *Agarick* trochisked. Among the stronger are *jalap* roote, given with Cream of Tartar, Syrup of Coloquintida, and the Pils of Sagapenum of Horstius. The Golden spirit of *Rulandus*. III. By blood-letting, provided the Heat be not dissipated, being expressed with flegm; and that there be a plethora. IV. By an heating and drying diet, let the Aire be hot and dry, the meats seasoned with spices, let strong wine be used, the body being first purged, Frequent use of Cappars, with wine and raisins.

IV. Another sort comes from preternatural *Melancholly*, whether thick or dilute, or degenerating into black choler. 'Tis *cured*, I *By alteration* with heaters and dryers, provided it be not black choler. The roots of Eryngos, Lycorize, the Herbes of *Ceterach*, *Baume*, *Dodder*; Flowers of *borrage*, *tamarisk*, *Cappars*, *the cordial flowers*. Syrup of sweet smelling Apples &c. Avoid Vinegar; and if it must be used, give oxymel, and a decoction of Citron peels. II. By evacuation with Melanagogues or *melancholly purgers*. The cheif are *Polipody*, *sena*, *Extract of black hellebore*. The diet must be heating & moistning. The Aire must be tempered, with a decoction of Mallows and violets; let the patients meates be boyled rather than rost, Egs, soft-boiled, flesh of henns, calves, partriches; corants, a temperate bath of fresh water, &c.

V. Another Sort comes from *Serum* or the *wheyish humor*, which is a thin and Salt liquor by its aboundance and quality altering the body of man. 'Tis *cured by evacuation* with hydragogues, sudorificks, Diuriticks &c. The cheif *Hydragogues* are among the indifferently strong, the *tops of elder* when they first shoot forth, dried with a gentle heat; an emulsion of the stones of elder-berries, Orice root. Among the strong are, Gambogia, Jalap, Extract of Elatery, conserve of Etula, pils of Sagapenum. The *cheif sudorificks* are, Spirit of dwarfe elder and of elder; Salt of Centory, of wormwood, of Ash, of Scabious, *Harts horn* prepared, *Antimony diaphoretick*, *bezoardicum jovial*. Among diuriticks are the *diuretical* liquor and syrup of *Rivius* in Renodeus his dispensatory, Salt of *Urine*, *Amber*, *beanes*, Spirit *of Salt*, *liquor* of tartar Vitriolated, half a scruple, compounded with half an ounce of Cinnamon water, and two ounces of julep of roses.

VI. Another is *compound*, springing from some of these humors, mingled together. In the *Cure* we must so work, that we resist cheifly those humors which most of all exercise their efficacy upon the body, not neglecting the rest either within or without. This wil be done, when the veins are free from the obstruction, all the passages of the body open, the humors not being much distempered, and the noble bowels of the Body not diseased. Here *panchymagoga* or *al-humor-purgers* are to be used, and the Imperial pils of Fernelius; which may be seen in the London Dispensatory.

Chap. 3. *Of Diseases springing from Hidden qualities.*

Diseases, from hidden Qualities, are diseases springing from Causes which work, by a malignant and venemous force, which cannot be judged to spring from the manifest qualities of natural bodies.

The *Signs* are, when a disease has rare symptoms, great ones, and such as are not to be seen in other sicknesses, no not of the same kind. When there has preceeded some suspition, either of some great degree of putrifaction arisen in the body, or of infected aire, or of contagion: or of poison, either taken in, or communicated from without.

The *Cause* is various, as shal be explained in the differences.

The *Event* of the cure is judged of, from the greatnes of the cause, nobility of the part affected, vehemency of symptomes, and the Deaths of many persons. *It is undertaken.* I. *By ridding away the poison*, which is done

divers waies according to the differences of poisons. *II* By administration of *Antidotes*, both common and appropriate to every part of the Body; where nevertheless, we must not forget the manifest qualities. This is an approved antidote viz. *An Electuary of Masterwort Roots*, of *sweet Angelica*, of *Gentian*, of *white thistle*, of each *two handfulls*, *terra sigillata* six ounces, *Myrrh* an ounce, *Venice Treacle* four ounces; *Rosemary*, *Rue*, of each one handful; Birthwort three pound, *Bayberries* one handful: *virgin bony clarified* a triple quantity to al the rest. Make al into an Electuary according to Art.

The *differences* are taken from the Causes.

I. Some spring from *internal Humors*.

II. Others *from infected Aire*. The Cure consists in *prevention* of *such aire* and *avoiding* the same. In *purification* of the infected aire, respect being had to the Cause of the Infection. By giveing of Alexipharmaca or Antidotes, by which the Heart may be defended, and the malignity driven away by sweat.

III. Some proceed from *water*. For there are certaine metalline fountaines, envenomed, either naturally or by some occasion, yea and drinking of water, has brought many into the dropsie, and the scurvy is caused by corrupt water. Such fountains are to be avoided: and faulty waters must be corrected, by boiling, straining, putting in barley flower or Garlick, &c.

IV. Others come from *Contagion*.

V. Others from *Poisons*, whose *Cure is doubtful*, if present poison be taken in, and that in great quantity. *Impossible* if the poison cannot be expelled, neither by vomit, stool, nor sweat. *Respects*, 1. *Expulsion* by Alexipharmaca or Antidotes, which differ according to the varieties of poisons. 2. *Evacuation*, especially by vomit, that those medicaments may better penetrate unto the Heart. 3. *Prohibition of Sleep*, least the poison should thereby peirce the sooner into the Heart and inner parts. The *Differences* are many. I. *Some* are *poisons taken into the body*, which are cured by a *gentle vomit* made of fat things. By *purgation*, if it stick in the upper Gutts. By *Urine*, if it tend to the urinary passages: and in all medicaments be sure to mingle Antidotes. *By Diet*, in which case, *Milke* is exceedingly commended. *II. Others are externally applied* to the body, whose *Cure* consists in *extraction* or pulling out the said poison, both by drawing medicaments and by such things as do it by a certain likeness, which must be continued, til the evil color pain and symptoms shal cease. *Interception*, which is excellently performed, by binding somwhat very hard upon some part above the place affected. *Use of Alexipharmaca*, if the Poison have peirced into the Body; as, was said before.

Title, II. *Of organical Diseases.*

Chap. 1. *Of Diseases of Conformation.*

An organical Disease is the deviation or swerveing of the parts of Mans *Body from their natural structure.*

Now because to the said Natural structure *Conformation*, *Number*, *Situation*, and *Connexion* are requisite, therefore there wil be so many differences, and to this title four heads are subjoined; and also because in *Conformation* or *Shaping*, three things are required, viz. *Figure*, *Cavity*, and *Surface*, there wil be consequently so many diseases.

Article, 1. *Of diseases of Figure.*

A disease in Figure, is the swerving of the parts of Mans Body *from their natural figure, depending upon certain peculiar causes.*

The *Signs* are evident, so that it is needless to speak of them.

The *Causes*, are whatsoever may violate the figure of our bodies either by compounding, or loosening, distorting, or exhausting.

The *Cure* is not difficult in such as by reason of the Humidity of their bones are yet in a growing condition. *It is hardly to be attempted* in persons growen up, in whom the bones, whose figure the external parts do represent, have attained greater hardness and dryness. It is *performed*, 1. By *handling* and working the part the contrary way, 2 By *binding* with swathes and splints. *It may be repeated*, if the former succeeded not, if the hurt be very great and the sick man lusty: and that by breaking of the Callus emollients being premised. *It ought not to be repeated*, if the patient be old, the hurt Less, and the Callus hard.

The

The *differences* are from the times of *swerving* of the parts.

I. Either it happens *before the Nativity* in the womb, and then the fault is in the shaping faculty, and it is hardly cured.

II. Or *in the birth*: and then, either the Infant was too great, or the Orifice of the Womb too strait.

III. Or *after the Birth*: where the chief fault is *overmuch repletion*, which must be cured with Evacuation; *Defect of Nutriment*, which requires meats easie of digestion, of good juyce, and of little Excrement. See the chapter of Atrophia, *Violent motion*, either caused by the patient himself, or by the Artist, in which case, fractures of Bones do chiefly happen. *The setling of one part upon another, either by reason of the Resolution or Convulsion of the Nerves*; in which case we must have respect to the disease it self of the Nerves.

Article, 2. *Of Diseases of the Cavities.*

Point, 1. *Of Diseases of the Cavities consisting in Exceß.*

Diseases of the Cavities are those, wherein the natural passages of the parts are hurt. By Cavities or hollow receptacls, we understand both those large Capacities of the Stomach, Brain, Heart, and Womb: as also the passages of the Veins, Arteries, Ureters, &c. and the Orifice or Head of the Vessels and al Cavities whatsoever.

And because the Cavities are hurt, either by way of *exceß*, or in *defect*; the diseases of the Cavities are divided into such as consist in *Exceß* and such as consist in *defect*.

Diseases of the Cavities in Exceß are, when they are greater than naturally they ought to be.

The SIGNS shal be set down, when we come to speak particularly of them.

The CAUSE is, what ever is of tendency to open, or distend, or fret, and divide the Cavities.

The CURE is performed by *Stopping*.

They are divided into *Anastomosis*, *Diapedesis*, and *Diairesis*.

I. *Anastomosis* is *when the mouths of the Vessels are too much opened and widened.* It is known by a plentiful shedding forth of such humor or matter, which ought to be contained in the said Cavities. It *arises* from such things either external or internal, which are apt to loosen, or distend. The *Cure* tends to shut up, by *astringent medicaments* (of which in their place) and has an Eye withal to their Causes. The chief astringents are, Leavs of *Shepherds-pouch*, seeds of *Purslane*, flowers of *Balaustians*, *small Daisies*, *bole Armeniack*, juyce of *Slowes*, *new* Treacle, pouder of *Mans Bones*, Crocus *Martis*, &c. As for the *differences*, 1. Either it springs from *an External Cause* as opening medicaments; and then the causes preceding must be removed. Or, 2. from *plenty of Humors* especially *blood*, burthening the faculty; and then the signs of those Humors are present. We must go to work, with blood-letting and purging. 3. Or *from the Quality of Humors provoking the faculty*; and then their signs are present. Evacuations being premised, we must use astringents.

II. *Diairesis* is, when the Vessels are divided. *'Tis known* by plentiful efflux of matter with pain. It *arises* from causes which corrode, distend, or break. *The Cure* requires conjunction or soddering by astringent Medicaments. The *differences* are taken from the Causes. 1. It is either from *external Causes*, viz. vehement motion, heavy weight, exclamation, leaping, contusion, wounds, sharp & thick medicaments. 2. Or from *sharp biting humors*, and then the signs of a cholerick or salt humor are present. The *Cure* consists in alteraion by cooling medicaments and such as blunt the sharpness of Humors; by evacuation with choler and water-purgers, &c. and by a cooling and mitigating diet. 3. Or *from plenty of Humors*, in which case, the Cure is the same with that in the Anastomosis. 4. Or *from Winds*, and then the signs of wind are present, viz. stretching without weight, wandring pain; the Causes engendring winds were precedent, the disease arose on a sudden, the Urine is ful of bubles, &c. *The Causes* are, plenty of moist diet, weak heat, which cannot digest the matter. The *Cure* requires, that the Cause be evacuated; that winds be expelled by convenient Medicaments. *White* Amber is commended in this Case, *old* Treacle also and Mithridate, Electuary of *Bayberries*, Conserve of *Sage*, Spirit of *Turpentine*, Oyl of *Fenel Seed*, *Anisseed*, Pouder of *Citron Peels*, &c.

III. Diapedesis, when *the Vessels are rarified*: 'tis known, by an over plentiful sweating forth of Humors. It *arises* from rarifying and moistening Causes. The Cure respects the Causes.

Point,

Point, 2. *Of Diseases of the Cavities in Defect.*

Diseases of the Cavities in Defect are, when the Cavities are rendred more straight than is fit.

The SIGNS you shal meet with in the particulars.

The CAUSES of this straitness are *Obstruction, Constipation, Growing together, Compression, Falling-in,* of which in the Differences.

The CURE requires the Removal of this Straitness, which varies according to the variety of Differences.

As for the *differences,* under them five things are contained.

I. *Obstruction,* which is nothing else, but *the shutting up of the passages by Humors or other things. It arises* from Humors and things wholly against nature, &c. 'Tis *cured* by convenient application of deobstructive medicaments. 'Tis *divided* according to the Causes, 1. One sort springs from *multitude of Humors*; and then Diet is the Cause. Evacuation helps this sort, which must be large, if the Humors be many, having respect to the places. From the Chest by Coughing, from the Stomach by vomiting, from the Belly by Stool. 2. Another *from thick and clammy humors*; and then we must use abstertion, cutting and attenuating: sometimes abstertion alone wil suffice, if the Cavity be open. The medicaments ought to be *strong,* when the viscidity of humors is great, and the place remote; *more mild,* when the Case is contrary, and alwaies appropriate unto the parts. 3. Another is from *Stone, Worms, Quittor, Dung,* of which we shal speak in its place: and then we must use al Evacuations, either at once, or at divers times. And respect is to be had to the place in which the humors are lodged. 4. Another sort is from *clotters* of *Blood,* then we must use medicaments which dissolve blood, such as are the Magistery of *Crabs-Eyes,* Pouder of *Rhubarb, Tormentil, Sperma ceti* not rancid, &c. You have cutting and deobstructive Medicaments, above in the third Book. The principal shal be specified, in the Cure of particular obstructions.

II. *Constipation, when the passage is shut up, by flesh or a tumor bred in the cavity.* It *arises* from a Caruncle, Membrane, inflamation, Tunicle, Push; which must be concocted. The *Cure* requires contumption and evacuation of the matter.

III. *Coalescence, is when the wals or sides of the passage grow together, after an ulcer or wound.* It *arises* from flesh growing to the Cavity, from a scar, &c. The *Cure* requires breaking.

IV. Compression, when the passages are stopped by causes incident from without, which force together the sides thereof. It *arises,* either from *external causes* as cold and dryers, where loosening and moistning things are good: or fresh *Tumors* or *Bones,* removed out of their places. The Cure requires their Removal, and has an Eye to the diversity of Causes.

V. Falling in, or falling down, when the passages are straitned by the loosness and falling together of the sides. It *arises* from over great moisture. 'Tis *cured* by dryers.

Article, 3. *Touching Diseases of the Surface.*

Diseases of the Surface are, when the parts decline from their natural Constitution, in the second Qualities.

The chiefest of them are *Roughness* and *Smoothness.*

I. *Roughness, is a want of that Smoothness which ought to be in a part.* It is caused, either by *addition of a Surface* in the solid parts, as in fractures certain scales are seen; and there is need of fetching somwhat off, by absterstive Medicaments: or by *taking away,* and then sharp things both *external,* as vapors, Winds, Fumes, Meats, venemous Medicaments; and also *internal,* as over dryness of the parts when their moisture is consumed, bitter choler, salt flegm, &c. In the *Cure* we must fil up, that which was hollowed, the acrimony of humors must be be tempered, and the parts not yet affected must be defended. We must goe to work with moist and clammy medicaments.

II. *Smoothness, is a defect of that roughness which ought to be in a part.* 'Tis *cured* with absterstive medicaments, which have withal some astriction, that the tone of the fibres may be repaired; and the spaces in the surface of the part, being dilated by humors, may be again contracted.

Chap. 2. *Of Diseases of Number.*

A *Disease of Number, is when there is a fault in the number of parts.*

'Tis

'Tis divided into a Disease of number in *defect* and in *excess*.

A Disease of number in defect is, when a part which ought naturally to be present is absent. That part is either *Sanguine* or *Spermatick*, which is not regenerate or repaired in Specie: or *simple*, or *compound*; nor must it be the particle of a part, but a whol part. The *Cause* is, whatsoever either by way of efficiency or privation of matter, may cause the want of any part. The *Cure* points us to Restitution, which is made only by nature; the Physitian mean while, preserving the strength of Nature, by defending the natural Heat; by supplying fit matter thereto, viz. blood; and by removing impediments, that is to say, Flesh and such like things. As for what concerns the *Differences*. Either the fault is *original*, or through defect of matter necessary to generation; or through the weakness of the natural faculty, which ought to attract, retain, and elaborate the matter; and so it cannot be restored. Or after birth: by cutting, gnawing, putrefaction, refrigeration; and the *Cure* is to be directed to its causes.

II. *A Disease of Number in Excess, is when there is a thing which naturally ought not to be present.* The *Cure* requires the removal of the said thing, which according to the variety of the things to be removed, must be various lest other parts be hurt, or that they may be hurt as little as may be; it is not to be applied to such things as do not trouble a man. If you consider the *differences*, The thing superfluous is either wholly against nature, as Stones, Wormes, &c. and then the Cure is to be applied to them: or some *entire substance*, which arises either through over great plenty of matter, and the weakness of the formative faculty in the first shaping of the Child, or by reason of of some vitious quality afterwards. In these Cases, the *removal* is procured *by Fire*, and hereunto belong actual Cauteries. *Iron*, whereunto belong al kind of sharp instruments. *Medicaments*, Causticks, Vesicatories, &c. of which we shal speak in their own place, when we handle particular Diseases. A Vesicatory Plaister made up of one ounce of *Cantharides* or *Spanish flies*, half an ounce of Terpentine, *Olibanum*, *Myrtle*, *Mastich*, *Camphire* of each one dram. *Oyl of Roses*, of *Wax*, of each a sufficient Quantity, is very much commended.

Chap. 3. *Of Diseases of Magnitude.*

Article 1. *Of Tumors.*

A Disease of Magnitude, is the swerving of the parts of Mans Body, from their natural magnitude.

It is divided into a Disease of *Magnitude encreased, and of magnitude diminished.*

Magnitude encreated *is a* Tumor, *which is a swerving of the Parts of Mans Body from their natural* State, *by encrease of bulke.*

The SIGNS are needless to recount; for if it happen in the external parts, it is perceived by the sight, if it be within, it either discovers it self by some external *Sign*, or by some other internal ones, of which when we come to the sorts. To encrease of Bulk there is sometimes added *distemper*, if the matter exceed in Qualities, and communicate them to the parts. *Solution of Unity*, if the Continuity be loosened by fretting, or stretching. *Faults in the shaping*, either if the figure be corrupted, the Cavities compressed or obstructed.

The *Causes* are Humors, Winds, solid Substance, of which we shal treat in their Differences.

The CURE requires Imminution or lessening that which is overgrown, which if the parts be not *sound*, it is perfomed by the same medicaments, which are good in Number abounding; if *sound*, it is performed by lessening the Patients diet, digestion, discussion, &c.

The *Defferences* are sundry.

I. One is from the *Humors* which is *known* by the signs of the Humors; it *arises* from Blood, Choler, Flegm, Melancholick, Seriosities, whether they be in the part by congestion or affluxion; and whether they are included in a peculiar membrane or not. 'Tis *Cured*, and that with *Difficultie*, if it be suddenly diminished, and be not evacuated by convenient passages, if a Fever be raised, or the fever that was before augmented. The *Cure* varies according to the variety of the Differences. 'Tis variously divided. For, 1. Either it is from *Humors stirred up in the part*; partly through fault of the part, inasmuch as the concoctive or expulsive faculty do not perform their Office; partly of the Aliment, seeing it is vitious and such, as it cannot be overcome by the part, and such as affords great store of Excrements.

ments. And *then* the tumor is longer in breeding: does not take up so great room, no cause or sign of any fluxion went before. In the Cure we must have an Eye to *Alteration* and *Evacuation*; and the latter must be *sensible*, if the matter be plentiful, and the part thick; *Insensible*, if the matter be little in quantity, and soft. *Now concerning the Congestion of Humors, observe*, 1. That the matter which is Collected in the common cavities, being so encreased that it can be no longer there retained, is poured back to the Cavities and particular pores of the Place. 2. That not only thick and clammy Humors, but also the ichors or thin Liquors, which separate themselves from the thick humors, are brought unto, and stick in the the part affected, especially when they grow cold, out of their own proper place. 3. Also it may proceed from a spirituous matter, whence it is, that a part being weakned by a blow, does sometimes remain continually puffed up and swollen. 4. Also that putrid humors are collected, and hence it is that there wil be smal risings in ulcers. 2. Or it is from *humors that come into the part from some other place*, either by Attraction caused by Heat or pain; or by Transmission, either from the whol Body or some parts. *Then* the signes are contrary to congestion. There was no pain in the part, if it came by Transmission; there *was*, if it happened by afflux. In the *Cure* we must respect, both the *continuing Affluxe*, and the tumor which is in breeding, where *evacuation* has place, either by blood-letting or purgation. *Revulsion* to the contrary. *Derivation* to the near parts. *Repulsion*, Interception, &c. and also the *Affluxe already performed*, where the same remedies are useful unless the matter be forced and fixed into the part, which must then be softened and ripened. 3. Or from *humors shut up in particular membranes or Bags*, where the humor is turned in a manner into another substance. 4. Or *from malignant humors*, where the signes of Maligity are present.

II. Another proceeds from Winds, which is hereby known, that there is no heavines felt, though there be sometimes paine, and the part is sometimes greater, sometimes lesser. It *arises* from causes ingendering wind, and winds are multiplied and collected either under the skin and about the membranes of the muscles, in the pores themselves of the similary parts or in the membranes of the bowels or in their cavities. It is *cured* and that with difficulty, if it be contained in the Muscles, because the flatulent spirit is disposed in al their parts restrained and shut in by the ambient membranes. It is nevertheless *cured* by *evacuation* of the matter, *discussion* thereof, and *Roboration* of the part.

III. Another proceeds from *solid parts*, whether they be bones fallen from their own into another place; or soft parts removed out of their place; or arteries, or veins: of which we shal treat in their proper places.

IV. There is another which is *taken away by invisible discussion*; and then the matter is neither much nor thick; nor deeply situate, nor shut up under a thick and compacted skin. The Body is not impure. Nature is strong: the member growes lighter: the troublesome pulsation ceases.

V. Another, is term inated by *Suppuration*; and then the matter is more plentiful and thick; lying in a deep place under a thick skin; while quittor is making, a paine and palpitation in the part together with a fever, afflict the patient: when the quittor is prodnced, the heat is diminished, the paine eased, the tumor becomes pointed, and begins to be soft and white; the quittor may be felt under a mans finger flowing this way and that, unless the part be thick, or it lie deep.

Another by *Induration*; and then the matter is clammy and hard, natural heat strong, the tumor it self diminished, and the Hardness is encreased.

Another by *Corruption*; and then the part appeares lead-colored and black, and the heat and paine are diminished.

Point, 1. *Of an Impostbume.*

Two things follow a tumor which proceeds from Humors, viz. an *Impostbume*, which is sometimies attended with a *Cavity*.

An impostbume, is a collection of purulent matter or quittor in the Cavity of of some part proceeding from the Humor which causes the swelling.

The *Subject*, is the parts and their Cavities.

The *Signs*, may be fetcht from the third difference of tumors arising from humors, where the business of suppuration is handled.

The *Cause* is the Humor it self, which natural heat ripens and turns into quittor. Hence it is various according to the variety of the Matter.

The

The *Cure*, has respect to two certain times or seasons.

I. *When quittor is in making*; and then we must act, 1. By *anodines* and paine-asswagers. Oyl of worms is exceedingly commended. 2. By *Ripeners* and that *temperatly hot and clammy*, in hot tumors, and soft and moist bodies,; such as *sweet oyl*, *wheat flower*, *milk*, *crummy part of wheaten bread*: with such as are yet *hotter*, in cold tumors, and cold Natures and parts; such as *terpentine*, *fire-rosin*, *larch-rosin*, *pine-rosin*, *figs*, *raisons*, *diachylon simple*. II. *When quittor is made*; where we must go to work with. 1. *Evacuation*, either *Insensible*, which is dangerous not only where there is great quantity of matter, for feare of hardning the same, but in al cases, by reason of accrimony, which may be increased by delay. Or *sensible*; and in this case, the Imposthume must be opened; either by more benigne medicaments, amongst which are Diachylon simple with mustard-seed figs, and salt: or by stronger, that is to say, potential and actual Caustick. 2. By *Clensing* with detergents, viz. *Juice of smallage*, of Centory, round birth-wort, wormwood, Betony, Agrimony &c. 3. By breeding of flesh with Sarcotick medicaments. 4. By *covering all with a scar*, by Epulotict medicaments, among which is *Emplastrum Diapalma*.

In respect of the *Differences* they are manyfold.

I. Either it is from *Blood*, and then it is easily ripened, and being ripened it affords laudible quittor. Or from *other humors*, which arises with difficulty, has somwhat in it like quittor, green and yellow.

II. Or it is *pure and simple quittor*, like either *to pap*, *hony*, *suit*, *oyle lees*, *and wine dregs*, and sometimes mixed with many other things

III. The Imposture is either in *fleshy parts*, and then it is easily changed into quittor; or *near the joints*, in nervous and weak parts, which have little Heat in them; and then it is ripened with difficulty.

IV. Either the quittor flowes up and down in the *Cavity*, and is gathered into the receptacle thereof, or it is shut up into a peculiar membrane and bag.

Point, 2. *Of the Hole in an Imposthume.*

The Sinus, or holly hole in an Imposthume, is when the quittor diffusing it self in the depth thereof, the neighboring skin does not cleave to the flesh beneath it

The *Sign* is the going before of an imposthume, and tents, by which it is best of al searched.

The *Cause*, is the quittor it self, which being kept in far below, does make by its acrimony coney holes as it were, and draws together the excrements of the whol Body.

The *Cure* is *impossible*, if it have collected a Callus and hardness. *Doubtful*, if much and unconcocted matter is voided forth, & pain felt in the Hole. *Hopeful* if little quittor, good and white, come forth, and there be no pain. 'Tis performed, I. By *Evacuation* of the quittor, which is done either by *bare clensing*, if the Hole tend downwards, with barly water, melicratum or mead, and wine sod with hony: or by *Opening*, so that either the whol cavity be cut asunder, if it be smal; or only the lower Orifice if it be great, and the part cannot be cut without danger. II. By *production* of flesh with Sarcotick Medicaments, where note. That an excrement must be removed, as wel if it be thin as thick, least it stick in the Ulcer, Most with the dryer sort, as *Orobus meal*, *Orice root*, *Birthwort*, *Myrrh*, *Tutty*, *pompholyx*, in such as are dry; with the less dry, as *Franckincense*, *Barly meal*, *and Bean meal*, in such as are dry. If the hole be not wide open, liquid medicaments are to be cast in by a syringe, and to be let alone a good while. By want of pain, and voidence of little quittor and wel digested, we may gues of the soddering and growing together again of the skin and flesh, and by contrary signs of the Contrary.

As for what concerns the *defferences*, either they are shallow *and little*; or *deep* and *broad*; Either *strait or oblique*. They tend either *upwards* or *downwards*, and that way the worst quittor is evacuated.

Article, 2, *Of diseases consisting in Magnitude, diminished.*

A disease of Magnitude diminished, is the diminuition of the parts of mans body in their natural magnitude.

There needs no *signs*, seeing the disease it self is evident.

The *Causes* are, want of aliment, either because it is drawn away, or because the channelar e obstructed. Straitness of the place in which a part ought to be augmented: sect-

ion, putrefaction, refrigeration, ustion: of which in their places.

The *Cure* is undertaken. I. By *repairing* the part with plenty of good nourishment. in which case drinking of wines, meats of thick juice, little exercise, indifferent rubbings, are useful. A Dropax or pitchy medicament, of which see the Pharmacopeia. II. By *regeneration*, if a member be pluckt away, which is the work of nature alone; only let the Physitian remove the impedicaments, &c.

Chap. 6. *Diseases in Situation.*

A Disease of situation or connexion, is the sejunction of such parts of the Body as ought to be conjoined, and a conjunction of such as ought to be separated.

'Tis needless I should speak of *Signs*, because the disease is of it selfe apparent.

The *Causes* consist in those things by means of which the parts are fastened together, and touching luxation, we shal speak in the following Article. Now the connexion of such things as ought to be separate, comes to pass when the intermediate parts are loosned, or the ligaments broken, or wounded. The *Cure* requires the Conjunction of parts disjoined, and separation of parts conjoined.

And because *luxations* are most frequent of al the diseases of situation: I think it meet in this place, to treat of *Luxation* in *Generall.*

Article. 1. *Of Luxation.*

Luxation in General is the slipping of a joint out of its natural seat into another, whereby voluntary motion is hindered.

The *Signs* are, the unlikeness of the Member to it self as it was before, in shape and length; Motion hurt; pain, by reason of Compression of the Nerves, Muscles, and tendons; the swelling of that part, in to which the joint is slipt; the hollowness of that place from whence 'tis fallen.

The CAUSES are, al such things which are apt to stretch or violently to force; especially the laxity or solution of unity of the parts, wherein the joynts are contained, the Contraction of the Ligaments, &c. The *Cure* is *more easie*, in children and soft persons. 'Tis *hard* if there be great pain, inflamation, a wound, or danger of Convulsion. If the Luxation be old and hardned with a callus. If it happen in childhood, and be not cured. If it tend to a Consumption, through cessation of Motion and Compression of the Vessels. If the joynts hurt, serve but few different motions. If they are departed far from their Cavity. If the Brows or edges of the Bones are broken. 'Tis *performed* by Reposition or *Restoring* the joynt to its place, which requires, 1. Sufficient extension, whereby the bone is forced into its place, 2. *Reposition* with ones hand; or by common Instruments, or some devised on purpose. 3. By *application of astringent Medicaments*, that Inflamation may be prevented. 4. By *diligent binding*, with swaths and bolsters. 5. By putting it into a *gentle posture*, and so that it may preserve its natural figure.

The Differences are sundry. For,

I. One sort springs from *external Causes*, a blow, a fal, violent extention before childbirth, and at the time of the birth: which ought to be prevented. Another from *Internal*, when an humor slipt into the Cavity of the Joynt, drives it from its seat.

II. One is *Perfect*, when the whol Joynt is fallen out of its place, which is termed *Exarthrema.*

Another is *Imperfect*, when the joynt is slipt only to the brim of the Socket, which is termed *Pararthrema.*

III. Another is with *Inflamation and Pain*, in which case, the pain must first be mitigated, the Inflamation asswaged; lest by distention of the Nervs a Convulsion arise; and afterwards it must be replaced.

IV. Another is accompanied with a *Wound* which is the most dangerous, especially if the wound be nigh the Joynt, and an accute feaver arise. Here, the Joynt, is forthwith to be restored to its place, if possible. If it cannot be restored, we must attend the Cure of the Inflamation to the seventh or ninth day.

V. Another is with a fracture, where the Joynt is first to be restored to its place, and the Fracture is to be cured afterwards: if it cannot be reposed, it is then to be restored, when the Callus is bred.

Title,

Title, 4. *Of Diseases of Unity dissolved.*

A *disease of Unity dissolved, is the loss of that Continuity and Unity which ought to be in the parts of Mans Body.*

The Causes therof are, 1. Such as are *Corrosive*, as al sharp things, Causticks, and Putrifiers. 2. Such things as *divide unity*, either by pricking and stabbing, or cutting. 3. Things which *break*, as stones, Timber, &c. 4. Things which bray and tear, either by replenishing or overstretching. 5. Such as *burn*, as things heated in the fire, red-hot Irons, &c.

The CURE requires *Unition*. The Physitians part is to see, that nothing betide the part affected, which may hinder the same. That the Lips may be rightly applyed one to another. That the temperament of the part it self may be preserved, and that the symptomes, which may happen, be prevented.

And forasmuch as among diseases of Unity dissolved, the chief are *Ulcers*, *Wounds*, *Fractures*, I must speak somthing of them in general.

Chap. 1. *Of Ulcers.*

AN *Ulcer, is a solution of Continuity arising in a soft part, diminution of Magnitude, caused by some fretting and eating matter.*

The *Subject* is a soft or fleshy part, comprehending not only the flesh of the Muscles, but that also of which the Guts, Bladder, &c. do consist.

SIGNS are needless in such as are external: the Internal may easily be gathered from the particulars. The *Times* of Ulcers, if you consider them, at *first*, a watry Sanies, thin, crude and plentiful, flows forth, the Symptomes, viz. pain, itching, &c. do afflict. At the *Augment* the Symptomes are encreased, the Sanies begins to be digested, and is lessened in quantity; al things are greatest in the *State*; in the declination they are less.

The CAUSE is either *external*, viz. Caustick medicaments, the Contagion of the Whores-pox, &c. or *internal* or humors, which are either bred in the part affected, or flow thither from elswhere; which may happen in the spring time, or by reason of exercise, in cacochymical Bodies.

The CURE is *difficult* if it reach to some noble parts of exquisite sense, ful of moisture naturally. If it follow other diseases, because then nature drives the vitious humors to that part. If the Ulcer be great, because the external air can work strongly upon it: If it be round, because the extremities are more hardly reunited. If it be old; because the bone must needs corrupt. If it tend to look green and black, for so the Heat of the part affected is extinguished. If it run with much sanies, thin, pale, lead-color'd, black, and stinking. If the spleen being in fault, it affect the Thighs, because thick and Melancholy Humors flowing to the Ulcer, hinder its closing. 'Tis *performed*, I. By *Evacuation*, if the Body be cacochymical. II. By *Blood-letting*, if it be plethorick. III. By *Suppuration*, when blood shed out of the veins, sticks in the pores of the part; where note, that absterfives are excellently mingled with suppurators, lest the Ulcer should become too moist, and that nature which then seperates the Excrements, may be assisted. Among them are *Turpentine*, *Oyl of Mastick*, &c. IV. By *Abstersion*, of which I spake but now; which is performed by detergent Medicaments. V. By *generation* of flesh, with Sarcotick Medicaments. And here observe, 1. That they ought to be neither strong nor weak: lest by the former, the ulcer become dry, the flesh be consumed, bloody liquors be voided: and by the latter, the flesh grow flaggy, and too great abundance of sanies be collected. 2. That *moist* medicaments be applied to the softer Bodies; yet so as that, Plaisters, Oyntments, Liniments be so soft that they be not melted with Heat of the part, and breed flesh too loose, and unlike that wich is beneath: *Pouders* must be put upon hard and dry bodies. VI. By *Introduction of a scar*, by epulotick medicaments. Where observe. That they ought to have a drying faculty both actually and potentially. They are then to be applyed when the Ulcer is not quite ful of flesh; lest if it be put to it, when 'tis ful, seeing the flesh does stil grow, the Scar becomes more extuberant.

The *Differences* of Ulcers are sundry:

1. One is *great, little, long, short, streight, crooked*. *Æqual*, in which the flesh is equally consumed in al the particles of the part affected. *Unequal* which is, contrarily disposed. *Superficial, Profound, External, Internal*.

II. Another is with a *Distemper*. 1. Either *hot*, which is known by Redness of the Flesh in the Ulcer it self. 2. By feeling of *Heat*, *Pain*, by reason of the acrimony and biting nature of the excrements. It *arises* from hot Air, too great a Quantity of Swaths and Cloaths, over hot medicaments. 'Tis *cured* by coolers which are withal Pain-asswagers and binders, such as are *Plantane*, *Roses*, *Sanders*, *Sugar of Lead*, *Bole Armeniack*, *Turpentine oft washt in Plantane Water*. II. Or *cold* which is known, by the Whitness, Lead-color'dness, and softness of the Flesh, in the Ulcer it self. It *arises* from cold Air, or such like medicaments. 'Tis *cured* not so difficultly, because the Ulcer and Distemper may be cured at one and the same time by Heaters, such as are *Oyl of St. Johns wort*, *Nard Oyl*, *Orice Oyl*, *Oyl of Rue*, to which may be added, Fomentations made with Wine. III. Or *dry*; which is *known*, by the hardness and dryness of the lips of the Ulcer, and the few excrements proceeding therefrom. It *arises* from like causes. 'Tis cured *with difficulty*, because we are forced to neglect the Ulcer, and sometimes, apply our selves wholly to remedy the distemper. For to moisten withal, *luke-warm Water* is good. IV. Or *moist*, which is *known* by the Excrescence of Flesh, and the softness and flaccidity thereof. By store of Excrements in the Ulcer. It *arises* from like Causes. 'Tis *cured*, by strong sarcoticks, made of *Cyperus Root*, *Smiths dust*, *Hoar-hound*, first washing the same to cleanse away the filth, with a lotion wherein astringents have bin steeped.

III. Another is with *Afflux of humors*, whether they come from the whol or from the part. 'Tis *known* from the swelling, which is seen in the lips and bordering parts; by pain, if nervous parts be affected; by plenty of Excrements, greater than the Magnitude of the Ulcer seems to require. It *arises* from Humors. 'Tis *cured*, 1. By *Revulsion*, among the remedies whereof, the chief place is ascribed to fontanels, if Ulcers are lasting. 2. By *Interception or* defence, to which intent the medicaments must be applied above the exulcerated part, towards the root of the Vessels. 3. By *Repulsion*, whose medicaments thereto subservient, must be laid upon the part affected. 4. By more vehement *Sarcoticks*. 5. By *Epuloticks*.

IV. Another is *Sordid*, which sends forth a thick and snotty Excrement, sometime with putrefaction and grievous smel, which is sometimes followed by a Sphacelation or a Gangrene. Now it is sordid or filthy, 1. *Either by reason of the Humors*: and then the lively color of the part is vanished. The *Cure is* performed by Diet; by Evacuation. By detersion with very abstersive Medicaments, among which Spirit of Wine, a decoction of Vetches, Oyl of Roses a pound, and Mercury Precipitate one ounce, boiled and mixed with other things, are commended. 2. Or by reason of *Unctious Medicaments*, and such as weakly dry; then the Ulcer appears white, and that whitness goes about the whol Ulcer like a bordering of cloath. It must be cured with gentle abstersives. 3. Or by reason of *strong medicaments*, then the Ulcer becomes hollow, and grows every day more red than other; a smal quantity of thin and hot quittor flows forth. 'Tis cured with cooler and gentler Medicaments, as the Oyntment of Diapompholygos.

V. Another sort is *Lead-colored* which *comes* either from the Air, or by afflux of Humors. 'Tis *cured* by scarification; that the blood may be drawn out by application of dry sponges. By drying with strong Medicaments, viz. the *green water* of *Platerus*, and *Hartman* his water in his Chymiatrical Paradise, in the Chapter *De Ozæna*.

VI. Another is *callous*, which proceeds from the use of over drying Medicaments. The Callus is removed by Emollients, or with corrosive Medicaments: but it must be warily removed in nervous parts, or cut off.

VII. Another is *with a Tumor*, which is known by the sight. It arises from Humors flowing in. It is cured after the manner of Tumors.

VIII. Another with *proud Flesh*. It *springs* either from abundance of blood; and then the Flesh is good conditioned. It is taken away, by fasting and application of dryers. 2. Or by reason of the weakness of Flesh-breeding and drying Medicaments. Then the Flesh is loose and spungy. 'Tis *cured* by Lignum aloes beaten, and dried on a rafter, with spirit of Wine rectified, twice inflamed, and prepared. *Bartholinus* of Causticks.

IX. Another is *hollow*, when the quittor being overlong detained, eats it self holes and Convey-burroughs as it were. See the Cure in the fifth Book of the Observation of *Valleriola*.

X. Another has *Worms* in it, which bred there. It is *known* either by the Eye if the ulcer be wide; or by a preception of biting pricking pain, and a kind of motion. The *Cure* requires,

requires, 1. Their *drawing-forth*, if they are at hand. 2. Their *being killed*, by medicaments which take away putrifaction and moisture.

XI. Another is with *varices* or black-swelled veins which is knowen by the signs of varices. It cannot be *cured* unless the varices be first cured, and taken away.

XII. Another with *corruption of the Bone* Which is thereby known, in that the flesh above the ulcer is flaggy and soft. The ulcer is frequently renewed, the sanies flowes out in greater plenty than is agreeable to the largness of the ulcer. The Bone is perceived to be uneven, if you put in a Probe. It *arises*, 1, From *external causes*, cold aire, incision, contusion, Sharp medicaments. 2. From *internal causes*, *viz.* Affluxe of sharp humors to the Bones, pravity of the Sanies, manifest or occult &c. The *Cure is difficult*, especially, if the flesh be lead-colored; if the rotteness be near nervous parts, or in the joints, or about the Heads and tendons of the Muscles, or about the great Vessels. 'Tis *performed*, I. By *laying open the Bone*, either by putting in gentian root, or with a Caustick, or by Incision. II. By *removal of the Bone*, either by exceeding drying medicaments, among which Euphorbium is the best: or by Manual operation, if the Rottenness lie deep, and sudden cure be required: which is performed by shewing or rasping, with a scraping Instrument or an Augur. By burning, after which the inflamation must be pacified and Pain prohibited.

XIII. Another is *with a fistula*, which is nothing but a narrow and long Hole. 'Tis *knowen* by putting in of a probe, and the flesh round about, is white, dry and hard. It *arises* either from plenty of bad humors, or the unskilfulness of the Physitian. The *cure* is *difficult*, if many parts be eaten and fretted, if the Fistulas be deep, winding neare the noble members. If they reach to the heads of the Muscles, the veins, arteries, Nerves, Bones, Joints, Cheft, Belly &c. *Not to be taken in hand*, if the Fistulas be far from the noble parts; and if superfluous humors be purged out by them. *Palliative*, whereby, universals being premised, the Fistula is dryed, with the water of Baths, of chalk &c. *True*, which is performed. I. By *premising Universals*, under which Vulnerary potions are comprehended. Mercurial purgations are good in this Case. II. By *removeing the Callus*, I. By *convenient medicaments* putting into the Orifice of the Fistula pencils made of sponge, the pith of Elder, bryony root, gentian &c. when it is widned, things are squirted in with a syrringe, and they are liquid or dry. Such are, *Serpentary root*, *Centory*, *Fig-Ashes*, Unguentum *Apostolorum*, *Agyptiacum*. By *opening the Fistula*, which being done, the Callus must be taken off with a pen-knife, or with a red hot iron, the part being guarded with a defensative. III. By *Consolidation*, the filth being cleansed away, by Centory, pimpinel &c. As for what concerns the differences, 1. Some *have divers holes or Cavities*, and then more quittor flows out, than can be contained in one Cavity. 2. *Others have divers orificies* and then if the liquor squirted in by the syring, flow back through al, and if the humidity be of the same coler, tis but one Fistula. 3. *Another terminates upon flesh*, then that which we touch with the probe is soft, and the quittor that comes forth is white. 4. Another *reaches to the nerve*: then pain is felt when we search it. 5. Another *bottoms at the bone*, and then that which we touch with the probe is hard. 6. Another ends upon a *Vein and Arterie*, and then if they be gnawen asunder, blood breaks forth: if not, a certain matter, like lees or dregs comes out.

Chap. 2. *Of Wounds.*

A Wound is the solution of Unity in a soft part, made by somewhat sharp, and cutting, either by way of a prick or stab, or by way of a slash or gash.

The *Subject* is a soft part, and that either external or internal, &c.

There need no *Signs*.

The *Cause* is expressed in the definition.

The *Cure* is *none*, if the Heart be wounded, so that the vital spirits be dissipated, if there be a vessel in the Lunges, out of which blood being shed, overwhelms the Heart. If some great internal vessel be so hurt, that it cannot be shut up whereupon, blood being plentifully shed, the sprits are dissipated. *Doubtful*, if the weapon were poisoned, if the wounded person be weak and ful of bad humors; if an inflamation happen, in the inner more nervous parts, and such as have more exquisite sence, which is followed by an afflux, of humors and sometimes by a Gangreen. 'Tis *difficult*, if it be joined with a Cachexy and dropsy, because overmuch moisture, hurts the cure. If it be purged out with difficulty. If it be complicated with other diseases. If it be in a part apt to receive a Conflux of humors. If it have

in it some extraneous thing, which cannot at first be drawen forth. If on the Critical daies (to which wounds are so far subject, inasmuch as they have in them some matter requiring Concoction) there is no change to the worse. If the wound be oblique or circular. If convulsion happen, or contusion be also present. 'Tis *performed*. I. By exemption of superfluous things. Where note, 1. Clotters of blood must be taken away only at the third binding, because by stopping the Orifice of the veins they hinder a flux of blood. 2. Those broken bones are only to be taken forth, which are perfectly free. 3. The weapon must be pulled forth, if the patient may live, when that is done. 4. That the weapon may be taken out, either by thrusting them along, if the passage be short, and neither bone, nerve nor veine prohibit; or by extraction, and both waies are performed, either with section or without the same; those things which cannot otherwise be removed must be brought out with drawing medicaments, nor must they be by any meanes left to Nature. II. By *conjunction of the Lips of the Wound*, where respect must be had to the manner of binding up, and to which belongs swathing, placing of bolsters, slipping, and the right placing of the part tied up. III. By *Digestion*, that the blood which flows out of the smallest veins, in the part wounded, and sticks in the pores of the part, may as soon as possibly be changed into quittor. Where observe 1. That in moist bodies vulgar moisteners must warily be used, least putrifaction being induced, the wound should turne to a sordid ulcer. 2. In dryer bodies, they are more profitable to correct the dryness. 3. That Digestives must be corrected with sarcoticks, and that we must not trust to one medicament. See the Medicaments which move quittor in the Institutions. This is the best: *Red clear terpentine* and Gum Elemi of each one ounce and an half, Weathers grease two ounces, old Hogs-grease one ounce. Melt all over the fire, and make a Liniment. 4. By *Conglutination* of the *Parts*, which is performed either by a medium of the same kind, in the soft and fleshy parts, in which plenty of blood, by strong heat is more easily changed into flesh; or by a Callus in the bones; or by a scar in the skin. Which is furnished by sarcotick medicaments, of which in another place; also by vulnerary potions, concerning which observe: That they are not to be used at the beginning, nor when external medicaments may serve the turn, and when there is a fever and Inflammation; those things must alwaies be used, which are appropriated to the parts. Hereunto appertain, The *Vulnerary Balsom* of Hartmannus in his chymiatria, the *glutinatory pouder of Crabs*, *Balsam of Earewax*, and *Rulandus* his balsam of sulphur. 5. By *averting the fluction*, where we are to use, 1. *Bloodletting*, if the body be plethorick. If the blood did not issue out two much before. If the wound be great, and there be no inflammation caused by pain, 2. *Purgation*, if the body be ful of bad humors, if the humors be thin, hot and cholerick; least they make the blood apt to stir. If it be used at the beginning. If there be no fever withal.

The *Differences* of wounds are sundry.

I. One is of the *Vessels*, and that either of a *Veine* and then the blood issues more violently, and it is thicker, blacker and less hot: or of an *Artery*, and then the blood is yellow, hot and thin; the patients strength is much spent, by reason of loss of spirits; tis hardly cured, by reason of the hardness of the Arteries, their perpetual motion, and the force of the blood in them contained. The *Cure* calls for the stoppage of blood, which is performed 1. By joining together the Lips of the wounded vessel, either with a mans fingers or a swathe, by which means nevertheless, the blood wil hardly be stopped. By *stopping the Orifice* of the Vessel, either by application of ones finger, or by medicaments which stop blood. The *external* medicaments are, *Crepitus Lupi*, a kind of puckfist or toadstool so called, *vitriol* poudered and put in a cloath, the pouder of Agricola consisting of two drams, of *Sugar of Lead*, *White franckincense*, *red myrrh*; *one dram of Saffron and Camphire poudered*, wet with *Frogs-spawn water*, & dried at a gentle fire, put into the wound. *Internal medicaments* see in the Chapter of bleeding at the nose. 3. By *Revulsion* with blood-letting, divers times administred, or by Cupping glasses, if the patient be weak. 4. By *Interception* with intercepting medicaments, which ought to be applied to the vessels, by which the blood flows. 5. By *dissolution* of the *blood* after it is congealed and clottered, see the medicines above.

II. Others are of the *Tendons* which cause pain but not very great. They are less dangerous. They are cured as those of the Nerves, Or the whol tendon is cut asunder in the mids and then the motion is taken away: but if not, the motion is only weakned.

III. Another is of the *Nerves*, which are *known* from the writings of Anatomists, by their

their vehement pain, to which convulsion and inflamation are wont to succeed. They are *cured with difficulty*, by reaton of following symptomes, especially, if there be no tumors. If appeareing, they suddenly vanish. If the Nerve have conceived putrifaction, and that be communicated to the near and remote parts. In the *Cure*. 1. *Paine and Inflamation* are to be *removed* by blood-letting and purging. 2. The *wound* must be kept *open* that it may vomit out its Excrements. 3. *Temperate and drying Medicaments* of thin parts, must be applied, mostly hot, respect being had to the Constitution of the body and affluxe of Humors. 4. The *intermediate parts*, must be fomented with oyl of white lillies &c. *If* you consider the differences. I. Some are caused by way of *pricking*, and then the kind of the weapon and the wound agree together. The Symptoms aforesaid follow. The *Cure* is hard because the disease is dangerous. Especially if it betide an impure body, and if the tumor arriseing, do vanish, and raveing follow. It *respects*, 1. The purging of the body from vitious humors. 2. The asswagement of the pain, by anodyne Oyls, or Cataplasmes. 3. The drawing forth of sanies or corrupt moisture either by drawing medicaments, or by section Cross-wise, or by tents, yet so as that they touch not the nerves. 4. Application of thin medicaments, moderately heating, and drying, as balsam of Peru, St. Johns wort oyl, 5. Diet in which cold aire, wind, passions of the Mind and venery, are prohibited. II. Others come by *Cutting*, which happens, I. Either *according to longitude*, and then the paine is not so great, nor is there so great fear of Convulsion, seeing the fibres are not so affected. In the *Cure*, the Lipps of the wound are to be closed together with a swath band. The corrupt liquor must be suffered to have its egress, which is like sometimes to milk, water, whey, whites of Egs. The foresaid Medicaments must be put in. The wound must be covered with a plaister of Diapalma, or some other. 2. Or *athwart* the Member, and then it is either cut quite in sunder: and then motion and sence are abolished without pain: or it is *not cut in sunder*, and then the pain is not so great; there are al the symptoms which may be in a prick. In the Cure stitching must be used, but so as not to hurt the nerve.

IV. Others are of *the Joints*, which happen in the Cubit, knee, and Joints of the fingers. They are, I. Either *without Luxation*, in which case the *Cure* is *Difficult*, because the Joints easily receive fluxions, and are apt to be pained: especially, if they happen in the inner part, where the vessels are greater. It is *performed*. 1. By drawing the Lips together, so that an issue may be left for the quittor. 2. By preventing the affluxe of humors, by evacuation, Interception, a right situation of the Member. 3. By repulse of cold aire, by Cataplasmes and other things. II. Or with *luxation* or *disjointing*, where there is greater danger because of tearing asunder the nervous parts. Halting followes. In the Cure, the joint must not be restored; for death would then follow. With the wound you must proceed as with other wounds, the binding up, only excepted. The fluxions must be prevented cheifly by purgations and Sudorificks.

V. Others are with *Bruising* when a weapon is blunt, or heavy, or a man is beaten against somewhat. In the *Cure* you must have regard to, I. The *Contusion*, where, 1. Afflux of humors must be prevented by revulsions, defensatives and repellers. 2. The blood which is flowed in, must be changed into quittor, by medicaments not too moist, and Cataplasmes must be applied round about where the part is bruised. II. The *Wound*, which, 1. Must be cured with digestives, of rosin, terpentine, and yolkes of Egs. 2. When quittor is bred, we must use absterson and consolidation. 3. If it wil not be suppurated, and there is danger of a Gangreen, we must Scarrify &c. The *Differences* are taken from the parts. I. Either it is of the *Nerves* and *Tendons*, where the part must be fomented with discussing Oyls, made hot. *If* the skin be withal bruised, the paine is first to be asswaged, with the white of an Eg, mingled with Rosewater: then a while after, the part must be fomented with astringent wine luke-warme: finally, Cataplasms must be laid on, of Elme leaves boiled in oyl, or the Ashes of vine spray with Hens-grease. If hardness remain, Emollients and Digestives must be applied. II. Or it is of the *Ligaments*, where we must deal with heating and drying medicaments &c.

VI. Others are by *Gun-shot*, which are knowen by the very sight. The *Cure* is *hard*, if the Body be cacochymical. If the the bones be withal broken. *If* they are made with a poisoned bullet. 'Tis *perfected*. 1. By drawing out the bullet, with fit Instruments. 2. By changing into quittor, what is bruised, with *Quercetanes* Ointment, P. 145. The balsam of *Pareus* recorded by *Sennertus* lib. 5. Of Wounds made by Gun-shot; so as to prevent

vent a Gangreen. 3. By abstersion with detergents, either stronger if there be much quittor, or milder. See *Quercetanus* Dispensatory p. 146. 4. By breeding of new Flesh, by Medicaments, which may be seen in the forenamed Author, and others. See besides *Ludovicus Botallus*, and others, *Quercetanus* his Treatise of Gunshot-wounds.

VII. Others are *poysoned*, either by an infected venemous arrow or other weapon, or by the biting of some beast: and then, in the wounded place there is greater sense of pain and pricking, and grievous symptomes happen. In the *Cure* we must thus proceed, as, 1. To stop the passage of the poyson to the inner parts of the Body; to draw it out by cupping-glasses or other medicaments; by moderate binding of the part above the wound; by cutting of the Flesh, unless it contain Nervs; by washing the wound, with Wine and Treacle mingled together; with Caustick, &c. By fortifying the Heart with external and internal Antidotes. 2. To cure the wound it self.

Chap. 3. *Of Fractures.*

A Fracture is the division of a Bone, by an external Cause, violently assaulting.

The SIGNS are, want of due motion in the member; bitter pain before the bones are composed; shortness of the member, by reason of the broken bone. The *Causes* are *external*; yet aptness to break, does proceed sometimes from the natural Constitution, sometimes from acquired rottenness, from the french pox, or some other Cause.

The CURE respects, I. The Inflamation, if there be any, which must be in the first place removed, respect being had to the part, with repellers, lest the Humors should flow in. II. The Fracture it self, where note, 1. It must be *extended*, without any pain, or as little as may be: by one man if the lesser bones, by two if the greater be hurt. 2. They must be *rightly placed* in their proper places, so as the ends may fitly joyn one to another, so that the Eminencies of the Bones may not be forcibly thrust into their Cavities, lest they should be broken. That if they break out of the Skin, they be handled after a peculier manner. 3. We must see whether they be *rightly placed and framed together*, which is known by Cessation of pain, and that there is no cavity: that the broken part feels just as the whol, save that it is thicker possibly, by reason of afflux of humors. 4. They must be *duly bound up*, which is then done, when a medicine made of the white of an Egg beaten with astringent pouders, is first laid on to prevent Inflamation. When the binding, is neither too loose nor too strait. It is then too loose when the Patient finds that he is lightly pressed, and the same night feels himself more strongly bound, and the day after a swelling arises in the extremity of the Member; if it be too strait the contrary signs follow. If it be not loosed before the third day. 3. The *member* must be rightly placed, that is to say, softly, lest it be pained; equally, that it may not be distorted; it must be somwhat raised, lest the Humors flow to it. III. The *Body* of the *Patient*, where if need be, blood-letting and purging must be used. IV. The *Callus*, and then meats of good juyce must be given. Medicaments which breed the Callus must be drunk down and applied, especially in grown persons, one dram of Osteocolla, with Comfrey Water. See *Aquapendent* and *Hildanus* in their observations. V. The *Symptomes*. 1. *Inflamation* whereto respect is to be had presently at the Beginning, nor is the part to be bound, or at least not so hard. 2. A *Gangrene*, which see in its proper Chapter. 3. *Itch* and Excoriation, which proceeds from sanies; where the Sanies is to be washed off, and afterwards *unguentum album Camphoratum*, *Rosaceum*, *&c.* must be used. 4. *Pain*, which either springs from the *overstraitness of the Swath-bands*, and then a swelling appears in the extremity of the part, and the sick Patient complains that he is extreamly pressed. The swath-bands are to be loosed, and the binding to be made more easie. Or from a *pricking bone*; and then a pain arises from a light handling of the part. The Bone is either to be restored to its place, or taken out, or cut off. Or from *a Confluence of Humors*, and then 'tis cured like a beginning Inflamation. Or from an *evil scituation of the Member*, and then the Patient easily discovers the same; the scituation of the Member must be changed. 5. The *Gracility or leanness* of the member, and then either an over-thin diet, or long binding of the swathes, is the cause. Nourishment must be drawn to the part.

The *Differences* of Fractures are sundry.

I. One is athwart, so as the Extremities do not at al stick together. 'Tis *known* by this, in that you may feel the ends of the broken bone asunder one from another, and in the place of the Fracture a nonnatural Cavity is observed,

THE SIXTH BOOK OF THE IDEA OF PRACTICAL PHYSICK.

Treating of External Diseases.

Title 1. *Of the Several sorts of Tumors.*

SO much may suffice to have spoken of Diseases in general and of their cure. Diseases considered in their several sorts, are either *External* or *Internal*. The former are *Tumor* or *Swellings*, *Diseases of the Skin*, *Diseases of the Hair*, *Ulcers*, *Dislocations* or *Disjointing*, and *Fractures*: and therefore there wil be likwise, just so many Titles in this Book.

Chap. 1. *Of Swellings or Tumors Caused by Blood.*

Article, I. *Touching over-great Corpulency.*

SOme Tumors spring from *Blood*, others from *Choller*, *Flegm*, *Melancholly*, from *Watry and wheyish Humors*, and some from *a Mixture of these one with another.* Those which spring from Blood are, *Over-great Corpulency*, *Inflamations*, *Bubo's*, *Phygetlon*, *Phyma*, *Furunculus*, *Parotis*, *Paronychia*, *Perniona's*, *Ecchymosis*, *Carbunculus.*

Corpulentia nimia, is an over-great increase of the Bodies Bulk caused by too much plenty of Flesh and Fat.

Signes are needless. The Consequences thereof are an Hindrance of the Motions and Operations of the body, shortness of breath, by reason of the passages being stopt, sometimes suddain Death in such as grow Fat when they are young, Barrenness because of the seeds watrishness.

The CAUSE is, the Increase of Flesh and Fat.

The CURE varies according to the variety of the Differences.

The DIFFERENCES are taken from the *Causes.*

I. One sort springs from *Encrease of Flesh*, which is *Caused* through plenty of good

Blood, made by a temperate Liver out of meates of good Juyce, the hot and moist temper of the Musculous parts of the Body, assisting thereunto. It is *Cured.* 1. By *Evacuation* through Blood letting, Cupping, Fasting, Eriction. 2. By *Consuming the Flesh*, with such things as strongly dry, and moderately heat.

II. Another from the encrease of *Fat*, caused by the Oylinesse and fattynesse of the Blood, falling out of the Veins into the Membranous parts, and there congealed by the moderate heat and Efficacy of the said parts. Tis *Cured* 1. By *Evacuation*, but it must be sparing, because such persons are apt to fal into cold Diseases. 2. By *Consumption of the Fat*, effected by things hot, bitter, diuretick; yet so as care be had, that by over much heating, another Disease be not Caused.

Article, II. *Of an Inflamation.*

An Inflamation is a Preternatural swelling of the fleshy parts, springing from blood which besides the intent of Nature flows into the said parts.

The SIGNES are, *Heat*, which is caused partly by reason of the Blood, partly by the stoppage of the pores springing from plenty and thickness of blood, which stoppage wil not suffer the Fuliginous Vapors to exhale; and partly by the bloods putrefaction. *Pain*, both by reason of the distemper, and the solution of continuity, caused by plenty of blood, filling and distending the part. *Redness*, the blood communicating its color to the part affected. *Tension* or *Stretching*, because of the abundance of blood distending the whol substance of the Part. *Renitency* or *Tightness*, from the same Cause. *Pulsation* by reason of the distention of the inflamed parts, caused by the heaving of the Artery, which wants freedom of roome to move it self.

The CAUSE is, the plenty of blood, or its sharpnes by reason of Chollerick Humors; which because they provoke Nature, they are by her thrust out, she using the blood as her Vehicle or Chariot to ride in, which flowes plentifully to the part, by reason of its pain. The *Manner of its Breeding*, is this. An *Hot* Fluxion, causing the blood to fal into the Muscles, first the great Veins, then the lesser, then the least of al are distended. And when the fluxion can be in them no longer contained, it partly sweats through the Coats of the Vessels, which have also their pores; and is partly sent out of the smal Orifices of the Capillary Veins, which open themselves into the substance of the part, and shed into the empty spaces, which are between the first bodies or Particles; whence the parts gather Heat.

The CURE is performed. 1. By *Blood letting*, that more blood may not flow into the part. If we should presently fal to work with repellers, the matter would be carryed to another place. 2. By *Purgation*, because sharp Humors give occasion to the Flux. 3. By *Alteration* that the blood may be cooled and thickned, provided the Veins be not strait, and the Patient not troubled with obstruction of the Bowels. 4. By *Revulsion*, that the Humor may be drawn to a contrary part: which is then best performed by bloodletting, when the matter is much in quantity and violently moved; by other waies and means, when it is little; Yea, and in such a case, it may be done by *Repellers* and *Discussers*. 5. By *Repulsion*, with repelling Medicaments, either watry only, or withal restringent. The *Former* are to be used. in thine Humors, seated in the surface of the Body, not much in quantity, Joyned with Heat; and of that sort are House leek Venus-navil, or Penny-wort, Violets and such like. The *Latter* have place in extremity of pain, where the Vessels are large, and the fluxion is caused through weakness of the parts affected. Chirurgeons frequently use the *Whites of Eggs* beaten together with *Rose-water*. 6. By *Interception* with *Defensative* Medicaments, which are fitly applied to such parts as are not fleshy, and through which the larger Vessels run. Oyl is judged improper to be mingled with these kind of Medicaments. 7. By *Derivation* of that blood, which has flowed into the parts. 8. By *Discussion* with discussive Medicaments; amongst which, the *Gentler* are the Roots of Marsh-Mallows, and of white Lillys, Chamamel flowers &c. The *Stronger*, Orice Roots, Elder flowers, Gum Ammoniack, Bdellium, Bears Grease. The *Strongest of al* are Nitre, Sulphur, Lime &c.

The DIFFERENCES are taken from the subject and Cause.

From the *Subject*. 1. There is one of *the Fleshy parts*, which is finished in the fourteenth day. Another of the *Tendons* and *Ligaments*, which because their substance is more compact and hard, is terminated with greater difficulty: yet it does not exceed the fortieth day.

From the *Cause*. Either it is from *good Blood* and is termed simply a Phlegmon or Inflamation;

flamation; or from *bad Blood*, which has *either* quite changed its nature, and that raises no kind of swelling; *or* it has other Humors mingled therewith; and *then*, if *Choller* be mingled, it causes that Inflamation which is termed Phlegmone Exysipelatodes; is *flegm*, Phlegmon Oedematodes; if *Melancholy*, Phlegmon Scirrhodes.

Article, III. *Of the Bubo, or Inflamation so called.*

The *Bubo, is an Inflamation of the Kernels which are seated in the Arme-pits, or in the Groines.*

The SIGNES are a stif swelling that yeilds not to the touch, with redness, pain, and a slight fever.

The CAUSE is Blood slipt into the Kernels, together with a vitious Humor provoking Nature to expulsion.

The CURE is *Doubtful*, when they ripen slowly, because they may turn to dangerous fistulaes. It is according to the *Cure* of Inflamations. *Digestion* must be procured by stronger Medicaments, because the part affected is colder. *Suppuration* ought to be hastened, least new ones should break forth. The *Balsam of Sulfur* and the *Plaister of Sulphur* of Rulandus, are commended.

The *Differences* are divers.

I. One is *Symptomatical* to which that which was lately said is appliable. Another is *Critical*, which follows another Disease, and eases the sick by its breaking forth. It must be left to Nature, if the Crisis be perfect: if it be imperfect, the Humor must be drawn forth, by Cupping-Glasses and drawing Medicaments.

II. One sort comes in the *Groines*, which is sooner ripe, because it springs from blood, and more Heat flows to those parts. Another is in the *Arme pits*, which for the contrary Cause, is long ere it come to Maturity.

III. Some Buboes are *Neither Malignant nor Contagious*; which being in the extream parts of the Body, are soon suppurated, and not dangerous. Others are *Malignant, Pestilential*, or *Venerious*: of which see in their proper places.

Article, IIII. *Of the Phygetlon, Phyma, Furunculus, or Felon Tumor so called.*

Phygetlon or *Panus, is an hard swelling, somtimes arising after Feavers or pains in the Kernels or Almonds of the Eares.* It *Arises* either *Externally* from an Ulcer, Pain, Bruise: or *Internally* from Chollerick Blood, or a Feaver, and is long in ripening. *Oyl of Guaiacum Wood*, is good in this case. *Phyma is a round swelling of the Kernels, smaller and flatter than the Phygetlon, less read and less painful, which soon comes to its height and turnes to suppuration.* It *Arises* from Flegmatick Blood, and troubles Children cheifly. It is *Cured* by ripning, through application of rosted Wheat &c.

Furunculus or Dothien, a Felon, *is a little swelling sharp pointed, not exceeding the largness of a Pigeons Egg, remarkeable for its redness and pain when it tends to Suppuration.*

Its *Signes* are known by the definition. It seldom comes single. It *Springs* from thick blood, and is thereby distinguished from an *Inflamation*; and the said Blood is not much a dust, and so it is differenced from a *Carbuncle*. The *Cure* is *easie*, especially if it rise high pointed, and is not hard nor forked. It is *performed* by Ripening. It is either *Mild* and *Gentle*, occupying only the Skin; or *Malignant*, rooted in the flesh. Or it is *Pestilentical* and *Epidemical*, which being black or green, is joyned with a Malignant Feaver.

Article, V. *Of the Tumer Parotis.*

Parotis is an Inflamation of the Kernels behind the Eares, proceeding from Blood, either pure or mixed with vitious Humors.

The *Signs* are, Swelling, Pain, Redness which appears behind the Ears. The *Cause* is blood, either alone, or mixed with other vicious Humors, which slips into these parts, being sent from the whol body, or from the Brain. In the *Cure*, we must not repel, but *Discuss* by gentle Medicaments, least stronger should exasperate the Pain; Also *Suppuration* may be procured, when Nature tends that way.

The DIFFERENCES *are divers.*

I. One sort is *Critical*, arising with Critical, signs, which is easie to cure; unless it hapen in

the end of a Disease, after other Evacuations, without the Abatement of the Symptomes. If it vanish away without Suppuration, it wil come again. It must be left to Nature; and being returned, it must be judged of, according to the Nature of its return. Another is *Symptomatical*, which if it spring from crude and undigested matter, it is dangerous, because the place is so nigh the brain. In the *Cure*, its antecedent *Cause* must be deminished: and the *Matter* discussed, softened, and opened, that the Quittor may do no hurt.

II. Some are *without feavers*: others *with feavers* which are more dangerous.

III. Some are *without Malignity*: others are Pestilential and Malignant

IIII. In some the matter flows from *the whol Body*; in others, from the Brain.

Article, VI. *Of Nail-sores, Kibes and Chilblaines.*

Paronychia, the Nail-sore, is a Tumor arising upon the fingers ends, beside the Nails.

The SIGNES are taken from the Situation, and greatness of the Pain, because the Nervous parts adjacent are affected and the said pain reaches somtimes al the Arme over.

The CAUSE is blood adust, somtimes Malignant, which Nature thrusts out into those parts.

The CURE is contrived by *Evacuation*, *Mitigation* of *Pain*, and *Suppuration*. *Repellers* must not be used, least we exasperate the pain, and fix the Humor. Oyl of *Lead* is commended by *Agricola* Page, 216. And *Eare-Wax* applied with a *peice* of *Ele-Skin*. Page, 246.

Perniones, Kibs and *Chilblains, are swellings which arise in the winter time, upon the Heels, Toes and Fingers, with other parts of the Hands and Feet.*

The SIGNS are, Refrigeration forgoing, Pains, Itch &c. The CAUSE, the winters cold weakening those parts, and by pain drawing blood unto them. They are somtimes long-lasting, and though they go away in Summer, they return again in winter. In the *Cure*. 1. The cold must be expelled by plunging the part into cold Water. 2. The Part must be fomented with blood warm Milk, wherein Rose-Mary, Bay berries &c. Have bin boyled; or it must be put into hot Water wherein frozen Turneps have been boyled.

Article, VII. *Of an Ecchymoma.*

Ecchymoma, is the effusion of Blood into the neighbouring spaces whereby a Part comes to have a livid, black and blew color.

SIGNS are needless, seeing the Disease is apparent to our Eye-sight.

The CAUSES are various; viz. *Anastomosis, Diapedesis, Diæresis, Contusion*, &c.

The CURE is performed. 1. By *Bloodletting*, if the Disease be great, least Inflamation be caused. 2. By *Repelling* Medicaments which must not be moist, least blood flow in, and they must have discussors mingled with them. *Honey of Roses* laid on with blew Paper is good, as is *terra Sigillata* dissolved with Water of Life. By *Digestion*, to which intent the Root of Solomons Seal bruised and steeped in Wine or other Liquor is good. 4. By application of *Cupping-Glasses*, if digesters help not. 5. By laying on *Ripeners* that are Of a middle Nature between strong and weak. 6. By *opening the Tumor*, least the Quittar corrupt the neighbouring parts, or make hollow fistulaes. 7. If the part encline to a *Gangræn*, we use to scarrifie the same, and to wash it with hot Vinegar, wherein the Root of Solomons Seal has been boyled. *Inwardly*, such things must be given as dissolve clotted Blood.

Article, VIII. *Of a Carbuncle.*

A Carbuncle is a Tumor springing from Adust, thick, and most fervent blood degenerating into black Choller, which corrupts the part.

The SIGNS are these following. A crusty Ulcer arises, blackish or Ash colored; not long after, a round Bubo, sharp and burning, which is worst towards the evening, breakes forth, and the flesh round about is very hot. There coucurs a Feaver, stomach-sicknes, vomiting, panting of the Heart, Swownings, Ravings, &c.

The CAUSE is such blood as aforesaid, which being bread in the Body, and having attained a certain degree of Malignity, is cast out, and continually generated by a new afflux of Matter.

The CURE in general is in a manner *None*, if having been red, they presently vanish away. *Hard*, of such as are black, and which are

seated

seated in the emunctories, and near the noble members of the body. *Easier*, of such as are red, Smal, Single. *The manner of proceeding in the Cure is this.* 1. Let a *Diet* be prescribed cold and moist. 2. *Blood-letting* must be practised at the beginning, to take away fervent blood, provided it be not drawn through some noble Members. 3. The Malignant Humor must be *prepared* and *Mitigated*, to which intent *Scabious* is most prevalent. 4. We must *Purge warily* because of the acute Feaver. 5. The part must be *Scarrified* where you are to note, that the *Scarrification* is to be iterated, if the blood require the same again. We must not *Draw*, if the Humor flow violently into the part, least the Feaver and pain should be augmented. Nay rather, moderate *Repression* is to be caused, by applying Medicaments to that end three fingers space round about the Carbuncle, To which intent the *Pap* of *Appels* is used, boyled with Vinegar of Roses into the form of a Pultis. A *Liniment* of Bole-Armoniack, with a sufficient quantity of Oyl of Roses &c. The *Plaister* of Agricola T. 1. Page, 139. The part being Scarified must be *washed* with Salt Water hot. 6. After it is washed Medicaments must be applied which resist putrefaction, especially made of *Scabious* and *Devils-bit*. 7. If Scarification help not, we must use *Burning*; but so, that we presently anoynt the Crust with Unguentum *Ægyptiacum*, or apply thereto a Cataplasme of *Orobus* meal and Oxymel simple, to remove the same, least if it remain upon the place, it prevent the breathing forth of the Malignant Humor. 8. The crust being removed, the Ulcer must be *cleansed* &c. The Cure thereof, see in Agricola T. 1. Page, 139. If you please.

The *Difference* is two-fold.

I. One sort is *without any Pustle* which discovers it self by those signs, of which mention is made in general, and there is nothing singular in the cure thereof. Another *is with a Pustle*, which *is known*, because an Itching is first felt, and soon after, one smal pustle or more, like the graves of Milet shoot forth, which being broken a crusty Ulcer shews it self. In the *Cure* there is nothing singular observable.

II. Another is *Pestilential*, and then the Constitution of the year is such; the *Symptomes* are stronger. The *Cure* is *most Difficult*, if it break out after a pestilential Feaver, the heart being possessed by Malignant Humors. Tis *easier*, if it break out before, unless violent Symptomes appear soon after. In the *progress* thereof, these things are to be noted. 1. That Blood-letting must be avoided, because it breaks forth, after the Patients strength is dejected. 2. That we are cheifly to make use of *Antidotes* both Internally, and Externally. 3. Al possible diligence must be used, to hinder the putrefaction from spreading. To break it, the *Plaster* of Heurnius in his comment upon the 55. Aphorisme of the fourth Book, is commended. *Oyl* of Antimonial butter, the *Magnetick Plaister* of Hartman, in his Chapter of the Plague. *Agricola* his *Oyl* of Mercury. T. 1. Page, 139. *Elixi* Pestilential of *Crollius*, &c. A *Cataplasme* of radishes beaten with Rose-Vinegar described by *Joel* T. 6.

Another is *not* Malignant and milder, which at first looks red like a Flegmone or Inflamation, and afterward waxes Yellow. For its Cure, see the general Rules.

Chap. 2. *Of Tumors springing from Choller.*

Article, 1. *Of an Erysipelas or Tumor so called.*

And so much may suffice to have spoken, concerning Tumors arising from blood. From *Choller* proceeds *Erysipelas* and *Herpes*.

Erysipelas, or St. Anthonies fire, is a Chollerick Tumor springing from Chollerick blood, flowing together into some part under the Skin, with a spot which is red, broad and dispersed up and down.

The SIGNS are, it seazes the patient with shiverings, after which a Feaver follows. There is a vehement biting and burning, so that smal bladders somtimes arise. The color is red inclining to yellow, not red inclining to brown; which, being pressed with the finger, vanishes and quickly returns. A pain which is neither pullative nor vehement, and stretches it self out to the neighbouring parts without tension. These signs are not observable in an Inflamation or Phlegmon.

The CAUSE is Chollerick blood, which is bred by an hot Liver, whereby it becomes more thin and movable: or by nature, many times becauſe of a maligne quality, it is driven into the outward parts, or is moved by external Cauſes &c.

The CURE is *hard*, if it follow upon the baring or fracture of bones. It if turne from the external to the internal parts. It is putrifie, or ſuppurate. If it ariſe on the Head or Face, becauſe the Tumor being augmented, it cauſes the ſquinzy. If in the Liver or Womb of Women with Child, becauſe it kils the Infant. It *reſpects*. 1. The driving away of the Diſeaſe, to which end are ſubſervient. 1. *Blood-letting* from the Liver or median Vein, in Plethorick and groſs bodies. 2. *Purgation* by the cooler ſort of choler-purgers. 3. *Provocation of ſweat* by Venice Treacle, in Elder-flower water &c. 4. *Application* of *Topick* or *external* Medicaments, which muſt be liquid and thin, and frequently renewed. The *principal* are, the *Lapis Medicamentoſus Crollij*. *Menſtrual blood* diſſolved in Groundſel-Water and Roſe-vinegar. *Balſom* of Litturige with Camphire, in Frog-ſpawne-Water. *Decoction* of red Myrrh and Olibanum, each one ounce, in Wine and vinegar of each four ounces. A Linnen bay ful of wheat bran, heated. The Liniment of Sebize, at the end of his Book *de Acidis*. 2. *Preſervation* from this Diſeaſe. Where *Blood-letting* is uſeful twice a year. *Purgation* by Choler-purges. *Diet* enclining to cooling and moiſtning, wearing of *ſtockings* wet in Frog-ſpawn-water. The uſe of that *Preſervative* mentioned by *Sinnartus*, in his ſecond Book of Feavers Chap. 16.

It is *divided* two manner of waies.

I. One is *Exquiſite*, to which the general rules aforeſaid agree.

Another is *Baſtard*, and that either *Phlegmonodes*, *Oedematodes* &c. Wherein the Tumor is greater.

II. One is *Simple*, in which the top of the Skin is colored and tainted, and dry ſcales are raiſed like bran. In this caſe, after general remedies, cooling Topicks are to be applied, and the diſcuſſion muſt be left to Nature.

Another is *Ulcerous*, in which after the puſtles are broken, ſaines or Blood-Water and quitter come out. It quickly breaks forth, with an evident Fluxion. It has great moiſt puſtles. Tis quickly come to ſolution and of its own accord: and ſo tis diſtinguiſhed from Herpes. To this al other things correſponding, cooling Topicks or external Medicaments may be applied, til the color of the skin be altered. See the *Cure* in *Rulandus*.

Article, II. *Of Herpes, or the Shingles.*

Herpes, Fermica, *or the Shingles, is a Tumor raiſed by Yellow choler pure and unmixt with other Humors, upon the ſurface of ſome part of the body, and creeping along to the neighbouring parts.*

The SIGNS are, a broad Tumor, ruffing the *Skin*; hardneſs, pain, ſenſe of burning; it makes a Circular kind of progreſs, the middle parts healing, while the extream parts break out a freſh.

The CAUSE is Yellow choler ſincere or unmixt, and thicker than in St. *Anthonies* fire, proceeding from its cauſes

The CURE reſpects. 1. The *whol Body*, which muſt be Evacuated. 2. The *part affected*, which muſt be gently cooled. Digeſtion muſt be uſed and diſcuſſion, by dryers, if heat permit.

Its *divided* into *Simple*, and *Eating*.

I. The *Simple* or *Milet faſhon'd* Herpes, roughs the top of the Skin, and is quartered only under the Epidermis or Skarfe-skin, raiſing thereupon very ſmal pupples, which have very ſmal height from the skin, like the graines of milet. If the puſtles are whole, cold and dry things muſt be uſed: if broke, cleanſers. Water of *quick-Lime* and Sugar of *Lead* are very good. A Decoction of *Arſe-ſmart* and *Resberry leaves* in water and Wine &c.

II. The *Eating* or *devouring* Herpes, the puſtles being broken exulcerates the true Skin, ſpreading it ſelf in depth and breadth; and is long in coming forth by little and by little, it has dry puſtles, laſts long, and comes unattended by a Feaver. Thus it is diſtinguiſhed from an *Ulcerous* St. *Anthonies fire*. Stronger Medicaments muſt be uſed in theſe ſorts of ſhingles.

Chap. 3. *Of Tumors ſpringing from Flegm.*

Article, I. *Of the Tumor cald* Oedema.

OEdema, *(being the only Tumor ariſing from Flegm) is a ſwelling cauſed by Flegmatick*

Flegmatick matter, which Nature expels into the parts of the Body.

The SIGNS are, the softness and looseness of the Tumor, pain none or very little, whiteish color, no heat.

The CAUSE is Flegmatick matter, the colder and moister part of the blood; which is sometimes expelled by Nature, sometimes tends downwards, by its own weight, and settles in the extream parts: It cheifly quarters upon the Hands and feet, being Members remote from the Fountain of Heat.

The CURE is performed. 1. By *Diet*, which must not occasion Fleagm and crudities. Fish are allowed, that swim in stony-bottomd Rivers. 2. By *Alteration* and *Digestion*, where Oxymel and *Oxysaccharum* are good. 3 By *Resolving* with Discussers, but the part ought first to be heated by frictions and fomentations. 4. By *Suppuration*, if by pulsation and pain, we perceive it tending thereto. Whereof see *Platerus*.

The *Differences* are sundry.

I. One springs from *Flegm alone*, which is more lasting; and is for the most part discussed by Resolution, that is to say, through the pores of the Skin. Another comes *from it* and other Humors mixt therewith; which sometimes suppurates, especially if it be in an hot part.

II. One arises *of it self* which is not dangerous. Another sort *follows other Diseases*, as the Consumption, cooling of the Liver &c. Which is dangerous and threatens death. In the *Cure*, regard must be had of the Diseases upon which it depends.

Chap. 4. *Of Tumors proceeding from the Melancholick Humor.*

Article, I. *Of the Tumor called* Scirrhus.

THe Tumors which arise from the Humor of Melancholick are the *Scirrhus* and *Cancer*.

The Scirrhus is an hard Tumor without pain, springing from a Melancholick Humor, which is thick, clammy and roaping.

The SIGNS are, little or no pain over-great hardness, & want of feeling when it is pressed.

The CAUSE is, an Humor either *Melancholick*, that is to say the dreggy part of the Blood, or the natural Malancholick Excrement; or sometimes also *Flegmatick*, which is either thickned by heat, dissipating the thinner parts; from thence Inflamations, St. *Anthonies* fire &c. Follow: or it is hardened by an *Immoderate Application* of repellers, astringents and strong Discussives.

The CURE is *None*, if it have no feeling: otherwise *some cure* may be. Tis *hard* by reason of the stubbornness of the matter. It is *performed*. 1. By Diet, which must yeild very good nourishment. 2. By the frequent *Evacuation* of the prepared Humors. 3. By *Removing the Contment Cause*, by Emollients and Discussers, either mixed together or used alone one after another, interchangably. The *milder* sort in persons tender and soft fleshed and when the Tumor is new. The *stronger* in harder bodies, and where the Scirrhus is old. *Fabricius* Hildanus his *Plaister* of *Hemlock* mentioned in the 25. Observation of his 3. Century. A Cataplasme of *Briony* Roots, *Goats-dung* and *Urin*; are very good. 4. If it come to suppuration; by cleansing away the quittor with the *Plaister* of *Diachylon simplex*, omitting heaters and section or lancing, least it turn to a Cancer.

It is *divided* into a *true* or *Legitimate*, which is void of sense, and in which hairs grow upon the part, for which there is *no Cure*: and a *bastard* which is contrarily disposed to the former.

Article, II. *Of a Cancer.*

A Cancer is a round Tumor, blue or blackish, having Veins round about it, ful and swelling, resembling the feet of a Crab; and springing from black Choller.

The SUBJECT are parts of the Body as wel external as internal, especially the moister and upper parts, as the Dugs of Women.

The SIGNS are drawn from the manner of its Rise. At first, its hardly so big as a bean, in the progress it exceeds a Wal-Nut and an Eg; it is hard, of a Leaden or livid color, or Else blackish, with heat, pain and pulsation; the veins round about swel with black blood, and resemble the feet of a Crab.

The CAUSE is adust and black Choler hanging in the veins, and by its thickness unable to pass along; which springs partly from

Nutriment affording such an Humor, which has not been drawn by the Spleen, partly from an hot burning distemper.

The CURE is *difficult* in al; both because it comes from a stubborne and Malignant Cause: and because it lurks in the deep veins. It is *not to be undertaken*, if the Cancer be hidden. If it be seated in a Cavity of the body, in the palate, Fundament, or womb. There is *no Cure*, if it be confirmed, and seated in some noble part of the body. It is of *some Hope*, if it be smal, fresh, and stick in the surface of the body. How it is to be performed, see in the differences. As for what concernes the differences.

I. One sort is *Exulcerated*, which is easily *known*, and is caused by a matter sharper than ordinary. It has the appearance of corrupted flesh, with stench, filthy matter coming forth, an horrid aspect, Lips very hard and turned in. There is a slow Feaver conjoyned, Swowning, black or yellow sains or Blood-water, running out of blood &c. Its *Cure* is either *Palliative* by gentle dryers and coolers: or true. 1. By *Incision* to the quick, after which the corrupt blood must be pressed forth, the Ulcer concocted, mundified (see Hartmans pouder, in his Chapter of a Cancer in the brest or Dug) filled with flesh &c. 2. By *burning*, either actual or potential, if the profounder and greater vessels be thereby occupied.

Another sort is *not Ulcerated*, which arises from a milder matter. Is *Cured*, 1. By *Diet* Moystening and cooling. 2. By *Blood-letting*. 3. By repeated *Purgations* of the *Humor*, with extract of *Hellebore*, pills of Lapis *Lazuli*; after it has been prepared with *Fumitory*, *Hops*, Juyce of Fragrant Apples &c. 4. By Application of *External* Medicaments, in which case gentle *Repellers* are useful, as the compound of Frogs-spawn. *Discussers* which have no biting quality, as *Pulvis Benedictus* of Hartman, the Magistery of Crabs-shels &c. See *Agricola* also, T. 1. Page, 145.

II. Another springs from *Suppression of the Courses*: Another of the *Hæmarrhoides*. The Cure must be applied to those Diseases.

Chap. 5. *Of Tumors springing from Wheyish, Salt and Cholerick Humors mingled together.*

Article. I. *Of Scabbyness.*

TUmors springing fom mixt Humors, do arise *either* from salt, Wheyish and Cholerick Humors: or from Flegm, Melancholy and Choler; so that the conjunct cause is no longer an Humor, but some other matter bred of Humors. Hereunto belong *Scabbyness*, the *Grecian Leprosie*, *Phlyctinæ*, *Sudamina*, *Sirones*, *Vari*, *Epinyctides*, *Alphus*, *Leuce*, *Impetigo*, and *Gutta rosacea*.

The Scab, *Is a Tumor arising from corrupted blood, vexing the Patient with distemper and Exulceration of the skin.*

The SIGNS are set down in the definition.

The CAUSE is corrupt blood, mixt with black choler and salt Flegm; which either comes from suitable Diet, especially when the Liver is distempered with Heat; or it is corrupted by contagion: and being brought unto the skin, it sticks therein, and causes Exulceration.

The CURE is accomplished. 1. With Diet which requires boyled meates. 2. By *Contemperation* and *Evacuation* of the Humors, and reducing the Liver to its due temper by the Syrup of Coral of *Quercetanus*.

It is *divided* three manner of waies.

I. One is Symptomatical, to which what has been said ought to be applied.

Another is Critical, which breaks forth after acute or long Diseases.

II. One sort is *moist*, out of which much sains or blood-water Issues. It is caused by *Salt Flegm*. Tis *Cured* more easily than the dry Scab, and that. 1. By *Evacuation* to which end whey of Goates-Milk, and Fumitory are much commeded. 2. By *provoking Sweat*, either by half an ounce of *Spirit* of *Dwarf-Elder* and two ounces and an half of Fumitory Water, or by *Spirit* of *Guaiacum*, or *Antimonium Diaphoreticum*, if it be more hard to be removed than ordinary. 3. By *Application* of *External* Medicaments. And here bathes of fresh water, and brimstone

stone bathes, are useful. Also to apply the Yellow middle bark of *Frangula* with Vinegar. And *Sinnertus* his Oyntment Book 5. Page, 1. Chap. 27.

Another *Dry*, in which nothing is voided, or a little quantity of thick matter, and the Ulcers are Lead colored. Tis *Caused* by an aduſt Humor. *Cured* with difficulty, after the same manner as the former, having respect to the Causes. Another sort is termed *Volatica* the *Running Scab*, which infects al the skin, in one night for the most part. In this, universal Remedies being premised, tis good to wash the Scabs, with the blood that comes from a Woman with the after-birth. See *Agricola* T. Pape, 280.

III. There is another sort termed *Malum mortuum*, which vexes the Patient with a Leaden and black color, crusty pustles, black, Dry, without sence or pain, cheifly in the Legs. It *Springs* from a Melancholick and Scorbutick Juyce. Tis *Cured* after the same manner, having respect to the Difference. Another sort is the *Leprosie* of the Greeks, which differs only gradually from other Leprosies. Tis *Known* hereby, because it Eates deeper into the Skin; and scales as it were of Fishes fal of, whether the Patient scratch or scratch not; and the Scabs stink filthily. Tis *Caused* by black-Choler oftimes mingled with Salt Flegm. *Cured*, by the same kind of things as the Scab, but stronger. The distmper of the Liver must cheifly be redressed. Sweat must be procured with a Decoction of *Salsaparilia*, *Guajacum* and *China*.

Article, II. *Of the* Phlyctænæ, Sudamina, Sirones *and* Vari, *Tumor so called.*

Phlyctenæ, (or wild fire) *are little blisters or Bladders raised in the skin, by exceeding sharp Humors.* They are *known* hereby, because they are like such as proceed from scalding, and when they are broken, a yellowish Humor breaks forth: *Spring*, from a Chllerick wheyish Humor, which is thrust out into the skin either by Nature, or some external cause. Are *Cured* by a Decoction of Duckweed (universal Remedies being premised if need require) an Epitheme of *strong Lie* made of Beech Ashes, mixt up with Lin-seed Oyl and walnut Oyl of each a like quantity, and frequently applied. 2. By *Breaking*; a drying Cataplasme being presently applied.

II. Sudamina, *are pushes like milet seed, which Ulcerate and ruff the skin.* They are *known* most easily. They *arise* from plenty of sweat, restrained within the skin, especially in an hot and moist stomach, after an hot Diet. Are *Cured* by washing with Oaken-water, to which a grain or two of Camphire may be added,

III. *Sirones* or *Chirones*, are *Pustles in the Palms of the Hands, or soles of the Feet, which have little worms in them.* The worms must be Dug forth: then the place must be washed, with a *Decoction* of *Oake-leaves* with *Alum*; or of Sulphar with Oyl of Tartar.

IIII. Vari, *are little hard Tumors on the skin of the Face, curdled up of an hard thick Juyce.* They are *known* easily. They are of the bigness of Hemp-seeds, and they infest young people that are inclined to Venery, and fruitfull; but chast withal and continent. They *arise* from an alimentary Humor for the most part, which insinuates it self into the pores of the Skin, and somtimes has Cholerick blood mingled therewith; and then they shed forth an ichor and turn to ulcers. They are *Cured* with *Difficulty*, if there be a deep redness in the Face with pustles. If the same be joyned with a bloat Face and Hoarsness of the voice. The *Cure* is wrought, by Discussers and Emollients, premising such things as purifie the blood. Commendations are given to *Oyl of Vitriol Sulfur*, or *Tartar* smeared on in the evening, and washed of again in the morning with warm water wherein bean-flower has been steeped.

Article, III. *Of the* Epinyctides, Alphus, *and* Leuce.

Epinyctides, *are smal Ulcers, which break out, of their own accord especially in the night, in the eminent parts of the Body, resembling Bladders which being broke in sunder, blood-watersh matter runs forth.* They are *known* by their leadenish color or blackish, vehement inflamation, pain encreasing in the night, by reason of the motion of black-Melancholy, and the nights cold, stopping the pores of the skin. They *arise* from a wheyish and Melancholick Humor, like the Cause of a Carbuncle in al things save Malignity, and greatness of the Tumor. The *Cure* consists in Evacuation and Topicks that bridle and temper the churlishness of the Humor offending.

II. Alphus, *The Morphew, are great Blots or spots upon the skin, changing the color thereof, which are spread up and down here*

and there, with a certain roughneß. They *ariſe* from blood badly nouriſhing and they trouble Men more than women or Children. They are either *Black* ſpringing from Melancholy blood through default of the Spleen, which are *Cured* after univerſal Remedies, by *good Diet*, bathings, anointing with Muſtard-ſeed pouder mingled with water: or *White* but not exactly agreeing with the whitneſs of the skin, which ſpring from Flegmatick blood, cheifly through default of the Liver. The skin is by them made white, but not the Hairs, and if it be pricked, blood follows. They are *Cured* more eaſily than the black one. They require not *blood-letting* by reaſon of the coldneſs of the blood.

II. Leuce, *is a continued blot, changing the color and ſubſtance, both of skin and fleſh.* Tis *known*, both from what is ſet down in the Deſcription: and becauſe it makes the hairs fal of, and others grow in their place, like down. The skin is flatter, than in other places. If prickt with a pin, a watry and white liquor comes forth. It *ſprings* from Flegmatick blood, with which the fleſh being nouriſhed, firſt becomes of a middle nature between that of Animals that have blood, and that of bloodleſs Live-wights, and afterward when it cannot change it into the form of red-fleſh, it becomes like the fleſh of Oyſters and Locuſts. The *Cure* is *Deſperate*, if after rubbing it look not red. If prickt, no blood follow: if the blot continualy encreaſe. *Difficult*, if it be ſmal, if rub'd it ſhew ſome redneſs, or be upon the hand or foot. Tis *Performed*. 1. By *Preparation* of *Humors* by heaters and cutters. 2. By *Evacuation* with *Flegmagogues*. 3. By *external Applications*, the parts being firſt rubbed with a Courſe Cloath.

Article, IIII. *Of the* Impetigo *and* Gutta *Roſacea.*

Impetigo, *Or Licheu, a Tetter or Kingworm, are hard puſtles upon the* Skin, *which ſpread themſelves into the bordering parts, with dryneß, roughneß and great itching.*

Tis *known* by what is in the definition expreſſed. It ariſes from a thin, ſharp, wheyiſh Juyce, mingled with an earthy Humor, which comes from a ſuitable Diet, and ſomtimes in the Spring and ſomtimes in the fal it enclines to the outward parts, and breakes forth. Tis *Cured*. 1. By *good* Diet, which muſt be neither ſalt, nor, biting. 2. By *Alteration* and *Evacuation* of the Humors, if they too much offend. 3. By *Application* of *Topicks*. *Unguentum Citrinum* with Oyl of Egs, live Brimſtone, Oyl of wax, of Cloves, and Camphire are commended, after a fomentation of Mallows Mullein and Fumitory. Alſo Oyl of *Tartar per Deliquium* with a like quantity of Oyl of *Wax* mingled. Tis *Divided* into a *Gentle* ſort, which being anointed with faſting Spittle, or with the Roots of the ſharp-pointed Dock, beaten with Vinegar, is ſomtimes cured: and a *Feirce* or *Angry* ſort, in which, beſides the former Medicaments, a water diſtilled out of Oyl of Tartar, with crude Mercury is good, the Mercury being in a quadruple proportion to the Oyl of Tartar. *Joil* his Experiment of the ruſt of Iron, Book. 10. Of his Practice, S. 3.

II. *Gutta Roſacea*, is a *Puſtulous* and ſomtimes *Tuberous* redneſs of the Face, Repreſenting Roſe-colored ſpots. Tis *known* by the ſight. Its *Original* is from thick blood and fervent, bred through default of the Liver originally or by bad Diet, and carryed up into the Face and there ſticking, by reaſon of its thickneſs. Tis *Cured*. 1. By reducing the *heated Liver*, to its right temper, with Syrupe of Cichory, Straw-berryes, and Coral. 2. By *opening* the ſtoppages thereof. 3. By *Topicks* as the menſtrual blood of a Virgin diſſolved in hot water, Oyl of Toades &c. See *Hartman of redneß and Puſtles in the Face.*

Chap. VI. *Of Tumors wherein the Humor is included in a proper Membrane.*

TO ſuch kind of Tumors there are three ſorts referred.

1. Strumæ, *or* Scrofulæ, *which are a* Scirrhous, *Tumors of the* Glandules, contained in a peculiar Membrane. Their *Subject* are the *Glandules* or kernels in the Neck, Dugs, Armpits and groins. They are known by the *ſight* eſpecially among the inhabitants of the Alpes. They *Ariſe* from a Flegmatick, Melancholick, mixt Humor, which proceeds from the crudity of Diet; or from a groſs Juyce nouriſhing thoſe parts, mixed therewith: which is ſhut up in a peculiar Membrane, made by the formative faculty. See the *Cure* in Book 5. in a peculiar Chapter. Tis divided into *ſimple*, of which now, and *Cancerated* which are mixed with a Cancer by reaſon of Black-choler. 2. Into *Free* which are Joyned to no Veſſel; and

and *Intangeld* or *Intaild*, which are Joyned with ſome remarkable Artery, Vein, or Nerve.

II. Ganglion, *Which is a Tumor ſcituate upon a Bone, by reaſon of a Preternatural twiſting or wreathing of a Nerve, which is grown together into one body.* The *Subject* are parts which are covered not with much fleſh, but skin only. *It is known*, both by its ſituation, and that it is void of pain, and of the bigneſs of an Eg, may be ſtretched to the ſides, and being preſſed it makes the body feel the preſſure. It *ariſes* by occaſion of a blow, reaching, or labour, which ſtretches and as it were breakes a Nerve or tendon. Whereupon the excrement of the Nervous part ſweats out. and ſticks about the Fibres and Nervous parts, and by their formative faculty, is changed into this ſubſtance. Tis *Cured*, by Emollients as *Emplaſtrum de Ammoniaca*; and digeſters; and if they ſuffice not with ſuppuraters and by Section; concerning which ſee the Authors.

III. Thoſe kind of Tumors, which ſpring indeed from the ſame cauſe, *viz.* A Flegmatick Humor or Alimentary Juyce; only they are diſtinguiſhed, by the matter contained in the bladder, and from thence take their reſpective Names. For it is named *Meliceris*, if the matter included be like Honey, the Tumor rounder than ordinary, and giving way when it is touched. *Atheroma*, when it is like Water-gruel or Haſty-pudding, and hard to the Touch. *Steatoma*, when it is like to ſuet.

Chap. VII. *Of Tumors ariſing from a ſolid Subſtance.*

TO ſuch kind of Tumors, theſe three ſorts following are to be referred.

I. Verrucæ, *Warts, being Tumors ſtanding upon the skin like Hittocks.* They are *known* very eaſily. They ariſe from, either a thick Melancholick and Flegmatick matter, or from ſuch Juyce as is ordained to nouriſh the Skin and Scarf-skin. They are *Cured* either by *Application* of appropriate Medicaments, ſuch as are the Juyce of *Willow-leaves*, and *Cichorium Verrucarium* or *Wart-cichory*, water which *Stands* on the *ſtumps* of *felled Oaks*. *Spurge Milk*, an *Onion* bruiſed with ſalt. They are divided into *Hanging warts*, which the Greeks term *Acrochordones*, being broad on the top, and ſmal at the bottom where they are faſtened to the skin, as it were by a ſtalk: *Thymia*, which are colored like time, are likwiſe ſmal at the skin, broad, hard and rough on the top, being ſmaller than the hanging-warts: and *Seſſiles* which the Greeks term *Myrmeciæ*, lower than the *Thymia*, ſcarſe bigger than Lupines, hard, broad-bottom'd, deep rooted, and cauſing pain.

II. *Clavi cornes*, which are wont to breed on the Toes and Soles of the Feet, by the preſſure and wringing of ſhoes; which ſomtimes of their own accord prove very painful, and are alwaies troubleſome to the goer. They muſt be *Noynted* with the blood of an Ele, and Oyl of Mercury; and when they are ſoftened, with Oyl of *Snailes*. When they are cut, ſmeare them with the Urin of a dog, and lay on a Plaſter of red Wax.

III. *Callus*, *Brawnyneſs*; is an hardneſs bread in the ſurface of the skin, in the palms of the Hands and the loweſt parts of the ſoles of the Feet. It has no deep Root, and is void of al pain. It may be pared of, after frequent waſhimgs and ſoaking in water.

Chap. VIII. *Of Tumors cauſed by ſolid parts falling from their due Situation.*

Article, I. Of Aneuriſma, Varix, and Elephantiaſis by the Arabians ſo called.

TUmors proceeding from ſolid parts falling down into or lying upon any part are many: we ſhal here ſpeak only of the *Aneuriſma*, *Varix*, and *Elephantiaſis* of the *Arabick Phyſitians* ſo called; the reſt we ſhal treat of in their proper places.

I. Aneuriſma, *is a Tumor ariſing from a breach in the inner coat and a widening of the outer coat of an Artery.* Tis *known*, becauſe it is a ſoft Tumor, beating with the pulſe, and for the moſt part, yeilding to the finger; and if it yeild not to the finger, nor pulſe, which may fal out in a great one: yet a noiſe as it were of boyling water is perceived, becauſe of the paſſage of ſpirits through narrow waies, and ſo it is diſtinguiſhed from an *Ecchymoma*. It *ariſes* through default of the Artery, which in reſpect of its inner coat, which is hard and thick, is opened; in reſpect of its external coat, which is thin ſoft and rare, it is widened. It is wont to happen, *either* by the *Violent Motion* of the flood, or by ſome external force;

most frequenly, when either an Artery is opened instead of a Vein, or an Artery together with a Vein is hurt. For then, the external coate, as being soft, and of kin to the coats of the Veins, growing together, and the inner remaining open, the blood and spirit Issues through the hole and distends the external coat. Tis *Cured* with *Difficulty*, if smal, if new. Is in a *manner incurable* if old and great; and if Section be made, danger of death is incurred. The Cure is *undertaken*: 1. By Application of *Repellers* and astringents; where Emplastrum *Contrarupturam* is useful &c. 2. By Section or cutting; touching which see Authors.

II. *Varix is the Dilatation of a Vein.* It happens *Cheifly* in the *Thighes*, under the Navil, and somtimes in the temples. It befals men principally, yet hardly before they come to Age. Tis known by the swelling of the Veins, and the part being Lead-colored or black. It *arises* from thick Melancholick blood, which fals into the place, either through its own weight, or being thrust thither by some violent Cause. *Varices* ought not to be *Cured* if they be critical, and free the patients from other Diseases, as they are wont to do from madness. If they are to be Cured, they are hardly Curable by Section; but best of al by extraction, of which see *Aquæpendens*.

III. Elephantiasis *of the* Arabians, *is a Tumor of the Feet, springing from Melancholick, Flegmatick blood, and the Varices.* Herein the *Thighes* are swelled, of a Leaden-color, black and ful of Ulcers. It can hardly be Cured without a continual and long Course of Physick.

Chap. IX. *Of Malignant Tumors.*

A single Article. *Of the* Elephantiasis.

MAlignant Tumors are sundry, *Viz. Buboes, Carbuncles, Smal Pocks, Meazels, Elephantiasis.* Of the rest I have spoke or shal speak elsewhere. I shal here treat only of the *Elephantiasis*. Tis called also *Leontiasis*, Satyriasis, and Lepra, *Being a Cancerous Tumor of the whole Body, springing from black choler infected with a Venemous quality, and shed into the whole habit of the Body causing many Symptomes.*

I do not mean the *Elephantiasis* by the Arabian Physitians so called, nor the Leprosie of the Jews.

The SIGNS are either of the Diseases *beginning*, as frequent spots in the Body, roughnes of the skin with risings, like a Goose with the Feathers of, with many scales and chinks, especially in the Face, Hands and Feet, falling off of the hairs. Or *coming to the height*, as a Tetter upon the tops of the fingers and the Chin, and the Eye-brows, which are thick and hanging over, hoarsnes of the voice, sweat easily turned into salt, which wil not melt in water; the blood being washed leaves grains and Sands in the bottom of the water. See the *Trial* of this Disease in *Horstius* his Medicinal Epistles, *S. 4. Tim. 1.*

The CAUSE is a Melancholy Humor and black Choler; which arises either from external Causes, dry constitution of the Aire, and Diet suitable; or from internal, *viz.* An hot and dry distmper of the Liver. Also it contracts a Venemous and Contagious quality, whence the Disease comes to infect others. The CURE is *None* when the Disease is confirmed, tis *Difficult* when it is newly begun. Tis *Performed*: 1. By *Diet*, where *Viper Wine* is good, and the flesh of Vipers boyled, their Head and Taile being cut off, Cider, Chickens fed with the flesh of Vipers or Snakes. 2. By *Preparation of Humors* by the *Herba Kunigundis*, an Herb so called, with Fumitory, boyled in whey, *Straw-berry* water, *Dodder*-water, Decoction of *Tamarisk*. 3. By *Evacuation*, both by *Bloodletting*, which must be Practised in the spring, *viz.* In both Arms and on the Ankle: and by *Purgation*, where extract of *Blood-Hellebore* and whey with *Epithymum* boyled therein are good: likwise by the *Hemorrhoides*. 4. By use of *Bathes*, of fresh water, and of brimstone waters &c. 5. By giving *appropriate* Medicaments, *viz. Hares*-blood hot, salts *Theriacal*, *Treacle*, *Bezoarticum Animale*, or Bezar-stone. 6. By *Mitigation* of the *Symptomes*; of which in their peculiar places. 7. By *burning*, of which see Authors.

As for the *Differences* there are four sorts thereof.

I. *Alopecia*, in which is an obscure redness, swelling of the Face, redness of Eyes, bleeding at the Nose. It *springs* from blood and is more gentle than the rest.

II. *Tyria*, so called from the scaly Serpent Tyrus, which casts of his Skin in the spring. In this, there is whitness, Scales, dandrusse. It *springs* from Flegm.

III. *Leonina*, so termed from the Rug-

gedness

gedness of the Lyons for-head. In which are prickings, bitings, Tetters. It *arises* from Choller and comes speedily to the Augment.

IIII. *Elephantiasis*, peculiarly so called, being greater than the rest and slower in its Augmentation, has its original from Melancholy, and is known by a cloudy blackness, knots and stupidity of the Patient. These sorts are seldom separated, and most frequently Joyned together.

Title, II. *Of Diseases of the Skin.*

Chap. 1: *Of Lentigines, Ephelides, Nævi-materni, Infantum Maculæ.*

ANother kind of external Diseases, are the disorders of the Skin under which are comprehended *Lentigines*, *Ephelides*, *Nævi Materni*, *Maculæ Infantum Maculæ Hepaticæ*, *Pruritus*, and *Malus Odor*.

I. *Lentigines*, Freckles, *Are small specks of a yellowish brown color for the most part, seated sometimes in the Face, sometimes on the breast, sometimes on the hands.* They are *known* by the description, and because they are subject to ruddy people and such as are yellow-hair'd. They *arise* from blood adust, either by inward causes, or the Suns heat, Occupying the Scarf-skin, especially of the forhead, because being there thicker than ordinary, it retaines the Vapours longer. They are *Cured* by the waters of *Elder-flowers*, *Bean-flowers*, and *Scrofularia*. By Goats and Cowes-milk mingled with pouder of Glass. With *Cherry-tree-Gum* dissolved in strong Vinegar, with a little Oaten-meal. With these they must be washed or anoynted.

II. Ephelides, *are brown spots on Women with Child, which quarter upon their Foreheads cheifly, their temples or Cheekes, as large many times as an hand-breadth.* They are *known*, by the presence of such Symptomes as are wont to afflict Women with child, especially loathing of wine and meat, frequent spittings, and gnawings in the stomach. They *arise* from suppression of courses: in Virgins sometimes from eating of *Beetes*. A Pap made of the pouder of Bayberries and Toad-stool-water is commended, being smeared on in a Bath.

III. *Nævi Materni*, are spots and marks imprinted upon the Child in the womb by the Mothers Imagination. They are abliterated either by the *After-birth while tis hot*, or the blood thereof: more easily, if privately, as the common people imagine: or the distilled water of *Caryophyllata Montana*, if the infant be washed therewith; or with the *menstrual blood*.

IIII. Maculæ Infantium Volaticæ, *which Nurses cal the Red-come, are red and purple spots, which creep up and down the bodies of young Infants.* And if they touch any Orifice of the body as the Mouth, Nostrils, Eyes, eares, tis counted a *deadly sign*. For *Prevention* the Orifices must be wet with Rose-water tinctured with a litle Saffron.

Chap. 2. *Of the* Maculæ Hepaticæ, *Itch, and bad smels.*

MAculæ Hepaticæ, or Liver-spots, *are brown spots sometimes appearing and then vanishing, with a slight roughness of the skin, and falling of scales.* They are *known* by the description. Arise from a thick blood, which seeing it cannot be assimilated, it sends forth what is Excrementitious into the skin: if they continue long, they are accompanyed with quartan Agues. They are *Cured* with Diet, and after universal Medicaments, with *bathes*, before which *Treacle* must be taken; and afterward, they must be nointed with green Mustard-seed, reduced with water into the form of Pap, which must presently be washed off, so soon as it raises heat. Also *Mans-blood* destilled with *Breast-milke*, is good.

II. Itch, *is a pain which stirs up a desire of scratching, without any roughness or Exulceration of the* SKIN. The SUBJECT is, sometimes the whol Body; but especially the soles of the Feet, because they are covered with a great and broad Tendon, and with an hard Skin, so that the Humors have not egress. Tis KNOWN, by the sense. It *ariseth*, either from Choller, or thin salt Flegm, so as it may insinuate it self between the smallest particles; but clammy and roaping, that it

may stick faster to the parts: which is bred of alt Meats, and Hot, through fault of an hot and Dry Liver. The CURE is *seldom* performed upon decrepit persons. *None* at al, in such as have the Consumption, if it follow after Costiveness. Tis performed, 1. By *Attemperation* of *Humors*, by Goats-Milk Whey, and Syrup of Fumitory. 2. By *Evacuation* of the antecedent Cause, by *Jalap* and Syrup of *Peach-flowers*. By Hemorrhoides and courses provoked, if their stoppage have been the Cause. 3. By *Mitigation* with *fresh-water bathes*, into which Mortar is to be cast, and the Oyntment of Hartmannus. 4. By *Discussion* with the said Baths, wherein Pelitory of the Wal, Mallows, sharp-pointed Dock. Alum, Sulfur, Vitriol &c. must be put.

III. *Bad smel Vapors, somtimes from the whole Body, somtime from its parts, as the Arm-pits, Privities, Feet.* From the *whole Body*, either becaus of some propriety of temper, or by reason of the blood and seed being corrupted in the Womb, or through some accident during the time of a Womans Belly-bearing. From the *Parts* by afflux of Excrementitious Humors, in moist bodies, which being thrust thither, becaus they cannot freely exhale, they conceive putrefaction and stench. In the *Cure* regard is to be had of universal Remedies. Let the *Diet* encline to dryness and resist Putrefaction. Let also the foresaid parts be often washed with a Decoction of *Scabious*, *Mirrh*, *Guaiacum*; and anoynted with an Oyntment of Orice-Roots, *Lignum-Aloes*, Balsom of Citrons, and Nutmeg compounded together, or let them be sprinkled with Pouders.

Title, III. *Of the Diseases incident to the Hair.*

Chap. 1. *Of falling off of the Hair.*

THe third kind of external Diseases, are those of the Hair under which are comprehended, *Shedding of the Hair*, *Graynes of Hair*, *Dandruff*, and the *Plica*.

Shedding of the Hairs, is when they do for certain Causes fal from the Body. It is *divided* into certain sorts, *viz.* *Defluvium*, *Calvities*, *Area*, and *Tinea*.

I. Defluvium, *is such a falling of the Hairs, that either all or most of the Hairs, fal of here and there in several places.* It is *known* most easily. It *arises* from divers Causes. 1. From *defect* of nourishment, as is seen in persons having the Consumption, and such as are sick of a Malignant Feaver. In the Consumption there is no Remedy. In other sorts, the Head must be frequently rubbed, that the nourishment may be brought thither. The Head must be washed with a Decoction of Capillary Herbs. 2. From the *Pravity* of *Humors which Eate and corrode the Roots of the Hairs.* In which case, universal Remedies being premised, things moderately Discussing are to be used. *Ladanum* is to be mixed with Oyntments. 3. From the *Rarity of the Skin.* Then such things as thicken the Skin, as *Ladanum*, Oyl of *Mastich*, and *Myrtles*, a Decoction of the *Roots* of *Burdock*, made in Lie.

II. Calvities, *Baldness, is when the Hairs fal wholly of from the fore part of the Head.* Tis *known* by the Eye-sight. It *Arises* from defect of Aliment, dryness of the Brain, either through Age, or some violent cause, as too much use of carnal Embracements. There is no *Cure* of baldness: yet it may be preveted and deferred. 1. By *good Diet*, in which biting, salt, and astringent things, strong Wine, too much venery, ought to be avoided. 2. By supplying nutriment to the Hairs, by such things as correct the dryness of the Brain. 3. By *drawing Aliment to the Roots of the Hair.* In which case Moderate frictions are good, and drawers joyned with things moderately astringent. *Ladanum* dissolved in Oyl of Mastich. Washing the Head with a Decoction of Fænugreek &c.

III. Area, *is the falling off of the Hair from certain parts of the Head, so as to leave bare & bald patches, here and there; arising from a bad and corrupt Humor, fretting the Roots of the Hairs.* It is *known* by the sight. and by the differences; of which anon. It *arises* from the Humor named in the description, especially from Flegm, Salt, adust, and putrified, through fault of the Brain and an hot Liver, and corrupt meates, as toad stooles &c. The *Cure* is *easie*, if the Disease be fresh. If the place being rubbed, quickly grows red. If the Extremities of the bald patches which border upon the hairy parts, begin to shoot forth

forth Hair afresh. *Hard*, if the Skin be thick, fattish, and wholly void of Hair. If the Disease be old. *None* if the place being rub'd, grows not red. Tis *Performed*. 1. By *Evacuation* of the *Vitious Humor*, by purges and *Apophlegmatismes*. 2. By *driving back* the said *Humor*, while it is in Flux. 3. By digesting the same, when it is fastened into the Skin by Medicines hot, and of thin parts, not very dry, least the Aliment be Discussed. First the *Weaker sort* as *Southern-wood*, *reed-Roots* burnt; afterward *the stronger*, *Mustard*, *Water-Cresses*, *white-Lilly Roots* which ought at first to be more Liquid, and left so long on, til some alteration be perceived in the Skin. *Beares-Grease* helps by a secret Propriety, of which with the Hairs of a Bear burnt, Oyl of Mastich-tree, and other things before recited, an Oyntment may be made. Tis *divided* two manner of waies. 1. Into *Alopecia*, which keeps in its spreading any kind of Figure, and happens in the beard and hair of the Head, in any Age: And *Ophiosis*, which begins on the hind part of the Head, exceeds not the length, of two fingers, creeps towards the eares with two heads, and in some as far as to the Fore-head, til the two Heads meet before. It cheifly haunts Infants. Herein also the Skin is superficially Excoriated, the Color thereof changed, and if it be pricked, Wheyish blood Issues forth. 2. Into that which springs from the *Whoremasters Pox*; that which comes from the Leprosie which is incurable; and that which comes from other *gentler* Causes.

IIII. Tinea, *when the Hairs fal off, one by one, being Eaten and consumed by certain Worms.* Tis *known* because the Hairs are shorter one than another and uneven. Smal worms thick in their ends. The color of the Hair becomes like that of Ashes. It *arises* from Excrementitious Humors, penetrating into the Hairs with their nourishment, and therein by Heat changed into worms. Tis *Cured*, Universal Remedies being premised, by Abstersion with docoction of *great Nettle*, *smal Centory*, &c.

Chap. 2. *Of the* Porriga, *and* Plica.

POrrigo, Dandruff, is when a man scratches or Combs his Head, and there fals somwhat out like Bran. It arises from serous, Cholerick, and Flegmatick Humors, which are carried to the Head with the nourishment of the Hairs; the more thin parts being Discussed, the thicker stick about the Hairs, and go into dandruff. They are attracted by an over-hot brain. The *Cure*, is by Evacuation of the peccant matter. By Discussion, and Abstersion, with some astringents. A Decoction of *Vetches* and *Mallows*, is good in this Case.

II. Plica, *is a tangling and folding of the Hairs into Elfe-locks or thickly thrummed and matted bunches, arising from plenty of matter profitable to nourish the Hairs but unprofitable for nutriment of the Body, and causing divers Symptomes.* It is *known* by bunchings and complications of the Hair, pains vexing the Joynts and bones, convulsions, plenty of Lice. The Nailes of the great Toes are rough and scaly, black, like a Goat-Bucks-Horn. The *Cause* cannot sufficientIy be explained. Tis thought to be a Matter affording plenty of nourishment to the Hairs, but such as is hurtful to the Body: as familiar to the Hairs as in the running Gout. Wheyish matter is to the joynts; or Polygonon and bone-glew to the Bones; whereupon, if the Haires be shaven, they shed blood. It *arises* from a peculiar corruption of the place, Aire, and water. Tis carryed thither with the Blood; somtimes Witchcraft may be joyned. The *Cure* is *hopeful*, if there be no pains. For so Excrementitious matter is thrust forth into the hairs, and the Vertue becomes stronger. There is *no perfect* Cure, seeing the Causes are not sufficiently known. Tis made worse by Purgations and Blood-letting. Some wash the Head with a Decoction of *Bears-breech*. A certain Countrey man used Baths to Cure this infirmity in which the Patients grew at first hairy, and then their hairs being cut off, they were Cured. See *Hercules Saxonia*.

Title, IIII. *Of Ulcers in Particular.*

Chap. 1. *Of the Gangræna.*

THe fourth kind of external Diseases are *Ulcers*, under which are comprehended

Gangæna, *Sphacelus*, and *Ambustio*. *A Gangrene is a corruption of the soft parts especially, tending to mortification; proceeding from the Corruption, Suffocation, Dissipation, or extinction of the natural Heat in the Part.*

The SIGNES are the change of the Color in the part to black and blue, Imminution or Lessening of the Pulse and Sense, Abolition of the Heat. Motion remains, if the Head of the Muscle be intire: nor is there alwaies a tumor, but there is alwaies an Ulcer of necessity. The *Cause* is, the Corruption, Suffocation, Dissipation and Extinction of natural Heat in the part.

The CURE is evermore *Difficult*, especially if it be with afflux of Humors. If it be in the moister parts of the Body. If it be Joyned with the dropsie. It is accomplished. 1. By convenient *Diet*. 2. By due *Evacuation* with Blood-letting and Purging. 3. By *Strenkthening* the Heart against putrid vapors. 4. By *Defending* the sound part against the spreading Corruption by Defensatives and Antidotes.

The *Differences* are taken from the Causes, which ar either *External* or *Internal*.

I. One kind proceeds from *Too much cold oppresing the natural Heat of the part*. It is *known* in that sudenly a sharp and prickling pain aflicts the patient; The redness of the part is soon changed into a Leaden-color a coldness and nummedness is perceived as it were in a Quartan Ague. Tis *cured*. 1. By plunging the coold part into cold water or rubbing the same therewith. 2. By drinking down hot potions to procure gentle sweates to excite the natural heat. 3. After the heat is returned, by rubbing the part with warme liquors to which intent a Decoction of Turneps is good. 4. If the part be already gangrænated, the parts must be scarified and fomented with hot cardiack medicaments.

II. Another sort springs *from bindings which intercept the Blood and Spirits*. In the Cure, the ligatures must be losed, Medicaments discussive and resisting putrefaction must be applied. If the gangrene have made progess, we must act acording to the symptomes.

III. Another springs *from defect of Nutriments or Atrophia* so called. Tis known in that, excepting leanness, neither tumor, heat, nor paine are perceived. when pustles arise, paine and fever follows. In the *Cure*, prescribe a *diet* hot and moist, *smear* the Body with moistening oils. *Draw nourishment* to the part by Cupping-glasses without scarrification, and anoynting with oyl of Earth-worms &c. If the Gangrain proceed, scarifie the part, and do as shal be here after specified.

IIII. Another sort springs from *External Heat which happens after great burnings*. If so, in the *Cure* prescribe a cool diet. Temper and purge hot humors scarrifie the part, and soone after wash it &c. Proceed not to an actual Cautery unless necessity compel.

V. Another springs *from the biting of venemous Beasts*. Tis *known* by relation of the patient, In the Cure. 1 The venome is to be drawn out by an actual Cautery, or scarrification. *Medicaments* resisting putrefaction, and such as draw, are to be applied, 3. *Ulcers* arising from scarrification or burning must be *Cleansed*, in which case we must not forget to use spirit of wine.

VI. Another sort springs *from the flowing of malignant Humors into the external parts*. Tis *known* hereby, that in parts, especially those which are in the Extremety of the body, a blader appears, under which there is a black spot. there is a continual fever, fainting away &c. Tis *Cured* 1. By a drying *Diet*, into which coolling cordial Medicaments are to be put. 2. By *Blood-leting* and evacuation, if need be. 3 By sudorificks, which must be lustily plied in this Case. Dittamus of creet, Vincetoricum, and Treacle, are good in this Case. 4. By *Scarifications*, *Cupping-glaces*, and application of Leeches to the part affected, if blood be not otherwise, sufficiently drawn forth. 5. By *washing* the same, after Incision with salt water, or some other fomentation, according to the greatness of the Cotruption. 6. By applying *Unguentum Egyptiacum*, or som resolving, drying and putrefaction hindering Cataplasmes, after washing. 7. If no ammendment appear, Caustick actual or potential, such as *Butter* of *Antimony*, or *Mercury Dissolved* in *Aqua fortis*, and precipitated with oyl of tartar, are to be applied. 8. By timely *Removing the Crust*, least new putrefaction arise thereunder.

Chap. 2. *Of the Sphacelus.*

SPhacelus *is a perfect Mortification of a Part which seases not only the softer parts of the Body, but the bones themselves.*

The SIGNFS are, there is no sence in the part, whether it be cut or burnt. Cold-

ness

nes, sharpnes, and blackness of the Flesh. At last it smels like a dead Carcas, and the skin is by the fingers separated from the flesh beneath it.

The CURE consists in cutting off, the manner of which see in Practitioners. And *then.* 1. Some part of the sound part, being very wel bound must be cut off, rather than the cutting should be practised upon the in infected part. 2, Section must be made in the fingers and Toes. 3. In the Feet, if the Disease reach above the ankle, the thigh must be cut off below the Knee. 4. In the Arme, very little of the found part must be cut of &c. See *Fabricius Hildanus*, in his Treatise of the *Gangræna* and *Sphacelus*.

Chap. 3. *Of Burnings.*

COmbustio, *Burning; is a Solution of Continuity in the Scarf-skin and commonly in the skin it self, somtimes in the Muscles, Veins, Arteries or Nerves, by the force of fire.*

Touching the *Signs* tis needless to speak, seeing burning is manifest of it self. The *Cause* is either *Fire, Scalding water*, Oyl or *melted metal* or *Fat* &c. The *Cure* varies according to the differences In the *first place*, the fire must be fetcht out. In the *next place* least pain attract the Humors and blood, we must use repellers and defensatives. *Then* we must by Diet, purging, blood-letting, Cupping-Glasses and other means diminish the same. A Mucilage of Quince-seeds, Extracted with Rose-water, and mixed with Line-seed Oyl, must be use at the beginning, which wil satisfie al Indications.

The *Differences* of burnings are Various.

I. One sort is *very slight*, which is *known* hereby, that the burning thing which caused it, was light, the skin is red, the pain most bitter and pricking, the place is puffed up, pustles arise ful of clear and white water. At last the Scarf-skin comes off. Tis *Cured.* 1. By *taking out the fire, that no Pustles may arise.* Which is performed, either by steeping the Member in hot water, or by Application of a Linnen Cloath wet in Lie, or Application of Onions beaten in a Mortar with salt; which nevertheless, is not good for burns in the Eyes. Exceeding Commendation is given to an *Oyntment* made of one part of Oyl-Olive, and two parts of whites of Egs, beaten together, and frequently anointed on, with the Feather of an Hen. 2. By opening the bladders, the third day after their arising, when the Scarf-skin begins to breed on fresh.

I. Another sort is *indifferent great*, which is known hereby, in that the part is forthwith swelled and inflamed. Pustles arise, wherein is contained a thin subtile water of a yellowish color, the Patient complaines his skin is stretched. Tis *Cured.* 1. By *Cutting* the *Pustles*, that the hot and sharp Humor may flow out. 2. By application of *Defensatives*, least Humors and blood may flow to the part affected. 3. By Application of tht Oyntment of Fabricius, made of *three* ounces of fresh butter, washed in Rose-water. *Oyl of Violets, Yolks of Egs, and of sweet Almonds, of each half an ounce. Barley meal one ounce and half. Saffron one scruple, Mucilage of Quince seeds one ounce. Wax as much as shal suffice.*

III. Another is *extream*, which is known hereby, that in the very moment that the thing burning sticks to the body, pustles arise, but fal soon after, the skin beneath is *black* or *livid* and *Lead-colored.* If pricked, it feels dully. When the Crust fals off, a putrid and profound Ulcer arises. Tis *Cured.* 1. By cutting the pustles or bladders, that the water which is contained in them, may be dryed up. 2. By *Separation* of the Escar the second or third day, which if it cannot be effected, it must in many places be cut with a Pen-knife. See *Fabricius* his Oyntment. 3. If a *Gangræna* begin, the Cure must be applied thereunto. 4. The Eschar being separated, the Ulcer must be clensed, filled with flesh, and covered with a Skar.

IIII. Another is, from *Gunpouder*, in which the grains of the pouder, must be taken out with a Needle, or some other Instrument. If they cannot be taken out, the pustles must be suffered to arise. If they arise not, they must be raised, by vesicatories, and cut; the pouder must be taken forth, and the place must be washed, with a Decoction of Fenugreek &c. Another sort comes from thunder, in which case sweat must be provoked by some Antidote. The Arteries, Lips, Tongue, Nostrils, must be anointed with Treacle wine. The Escar being removed, *Mundificatives* and *flesh-breeders corrected with Bezoarticks* are to be applied. If a bone be broken, the Vulgar astringent Cataplasmes are to be avoided.

V. One sort is of the *Face*, in which the Medicine of *two Eg-whites, Oyl of Roses two ounces, Rose water one ounce* has place. Another is of the *Eyes*, in which case warm

brest

breſt Milk muſt be dropped on. If a Cruſt be raiſed, we muſt uſe Emollient fomentations, leſt the Eye lids be drawn back. The skin muſt many times, with both hands, be drawn back. Another, is of the *Joynts*, in which the afflux of Humors muſt be ſtopped. Pain aſſwaging Topicks are to be applied; leaſt the Nerves be contracted, or the joynt become crooked, we muſt be very Vigilant &c. But touching al theſe ſee *Wilhebmus Fabricius Hildanus his Treatiſe of Burnings.*

Title, V. *Of Luxations in Particular.*

Chap. 1. *Of* Luxations *of the Jaw-bone, the* Clavicula *and the* Vertebræ.

THe firſt kind of external Diſeaſes are *Luxations*; and *they* either of *upper Limbes* or of the *Lower*. To the former belong, the *Luxation* or *Disjoynting* of the *Jaw-bone*, the *Clavicula*, the *Spine and Ribs*, the *ſhoulder*, *the Arms*, *the Hands and finger joynts.*

1. The *Luxation* of the *Jaw-bone* is cauſed towards the fore part of the Face, the foremoſt and ſharp proceſs like a beak, being ſlipt beneath the Jugular. Tis *known* hereby, both becauſe the nether Jaw ſticks out foremoſt, and the proceſs ſticks out by the ſaid jaw: as alſo becauſe, the mouth continues alwaies open. It *ariſes* from too much opening the mouth and gaping, and ſtretching the Jaws, whether it be by yawning, or by taking ſome burthen by the teeth, and lifting it high up; yet is it hardly done, becauſe of the ſtrength of the Muſcles, wherewith it is faſtened to the upper parts. The *Cure* is undertaken. 1. By *Repoſition*, leaſt the Belly void choler, or vomiting be raiſed; and it muſt be ſuddenly procured, leaſt the Brain be drawn to conſent, by reaſon of the Nerves inſerted into the temporal Muſcles: touching which, ſee Authors. 2. By *Præcaution* of *Inflamation* and other Symptomes. If the Patients neck be pained, a vain muſt be opened in the Arme. 3. By *Retention* of the replaced Bone &c. Tis *divided* two manner of waies. 1. Into that *of one ſide of the Jaw*; and then the jaw with the Chin is bent towards one ſide, the mouth is diſtorted, the teeth anſwer not one to another. And into that of *both ſides of the Jawes*; and then the whole with the chin hangs over towards the breſt. The temporol Muſcles are ſtif. A certain eminency is perceived in both parts. 2. Into that which happens only *to perſons of ripe years*, and that has been here deſcribed: and into that which betides *Infants*. in whom becauſe the *Mandibula* is divided into two parts, and is joyned together in the middle of the Chin by a large griſtle, the ſaid griſtle being looſened by afflux of Humors; or the bone being ſeparated from the griſtle, which in grown perſons turns to a bone, it may be disjoyned towards the right or left ſide.

II. The *Clavicula* is disjoyned either towards the *Breaſt-bone*, or contrarywiſe towads the top of the *Shoulder-blade*; but ſeldom, by reaſon of its firme connexion with both the bones. Tis *known*, becauſe the ſhoulder ſwels, and in the place from whence the *Clavicula* is ſlipt, there is a manifeſt Cavity. Tis *Cured* with difficulty, and for the moſt part, the Arme is deficient in ſome of its motions. A ſtrong binding muſt be uſed.

III. Luxation of the *Vertebraes*, is either *outwards*, or *inwards*. Tis eaſily Cured in Children, hardly in perſons grown up.

Chap. 2. *Of* Luxation *of the* Humerus, Cubitus, Radius, *and the Fingers.*

TO the *Laxation* of the upper Limbs there likewiſe belongs, *Luxation* of the *Humerus*, *Cubitus*, *Radius* and Fingers.

I *The* Luxation *of the* Humerus *or Shoulder is when the Head thereof, which is round, inſerted into a ſhallow Cavity, and fenced with a very looſe Ligament, ſlips out of its proper place.* It *ariſes*, for the moſt part, from a violent cauſe, ſtretching of the Arme &c. Tis *divided* into that which is cauſed under the *Arm-pit*, and then ſomwhat round and hard, is ſenſibly felt under the Arme, the *Cubitus* ſuddenly becomes more diſtant from the Ribs. It may be *reſtored* either by turning round the Head of the *Humerus* about the neck of the *Scapula*, or by the Heel, or by a Ladder, or a peſtle, or by putting the Shoulder under &c. And into *that* which is *made forward*. Then there is in the hinder part an Unuſual Cavity, and

& in the fore part there is seen an over great protuberancy, the Head of the *Humerus* is distorted to the breast. The *Cubitus* inclines to the hinder parts. In the Restitution, a contrary motion is to be made; and although the member be not made shorter, yet because we unfold and loosen the Head, some extension must be made, though but smal. See *Aquapendent.*

II. *Luxation* of the *Cubitus* seldome happens, both because it is a joynt variously Figured; as also because the ligaments are exceeding strait; and therefore tis likewise reposed in its seat with difficulty. It *Happens.* 1. Either towards the fore-part: and then we cannot bend our Arme being stretched forth, and our Cubit is made shorter. An unwonted Tumor appears in the fore part, and a Cavity in the hinder part. Tis *Cured* by Extension Obilquely, and reposition of which there are divers waies. Either towards the *hinder part*, and then a Tumor appears in the hinder part, a Cavity in the former. By *Extension*, which is hard in this Case, when the fresh Dislocation is reposed only by the hands. 2. Or *towards the outside.* Then the Tumor is in on the outside, a Cavity on the Inside. Or towards the *Inside*, and then al things go contrary. And extension being made, the impulse of the *Cubitus* ought to be made, to the contrary side. Anadyne, and astringent Medicaments must be applied after the Reposition. 4. Or the *Radius follows*, and then the distance of the *Cubitus* form the *Radius* is perceived by the touch; or it *subsists.*

III. The *Luxation* of the *Radius* is wont to happen, towards the external part. And then a swelling appears in the outward part, the *Cubitus* and *Radius* stand gaping one from another. Extension being made, tis easily restored to its place.

IIII. The *Wrist* is dislocated. 1. Either towarsts the *hinder part.* Then the fingers cannot be stretched, because the Tendons and nerves are compressed by the bones. Or to the *fore part.* Then there's a Tumor in the fore-part of the Fingers. The fingers cannot be bent. 2. Either *Inward* or *Outward.* Then the swelling is in that part, the Cavity in the contrary part. See the Cure in *Aqua pendent.*

V. The *Fingers* are disjoyned towards the fore part, the hinder part, and side-waies. The *Signs* are most manifest because those Joynts are without Flesh.

Chap. III. *Of* Luxations *of the Thigh, Knee, and Ankle.*

TO the Luxations of the nether Limbs pertain, the Luxations of the *Thigh*, the *Knee*, and the *Ankle.*

I. The *Thigh* is hardly dislocated, both because of most strong Muscles, and the abundance of their flesh; also because of the deepness of the socket of the receiving bone; and likewise because of two strait and short Ligaments. Tis likewise *restored* with *Difficulty*, especially if the Luxation contract a callus and so grow hard, and humors flow in about the Head of the Thigh. Reposition is *effected*, either without extension, or with extension performed by the Hands, or by certain cords fit for that purpose. The Thigh is dislocated. 1. Either toward the foreside. Then the Thigh being stretched out cannot be drawn in, because the *Musculi Inflectentis*, are compressed by the Head of the Thigh-bone. The Urin is suppressed. The Buttocks appear rugged. Or towards the *Hinder-side.* Then the Thigh cannot be held forth, because the *Musculi extendentes* are affected. That leg becomes shorter than the other, because the Cavity is in the lower, the Head in the upper place. The Heel does not touch the ground. The Head of the Thigh appears through the Buttock. 2. Or *inwardly*, then the Knee, the Leg and Foot bear outwards. The Thighs cannot be bowed towards the groins. Just against that place which is between the stones and Fundament, an evident Tumor, appeares, in the outer part of the *Sinus.* Or *externally.* Then between the Cod and Fundament, the part makes a Cavity; but by the Buttocks, tis raised into a Tumor. The Knee, Foot, and Leg bend inwards. The Heel touches not the ground, but the Sole.

II. The *Knee* doth not so sone fal out, because it has too Ligaments; also it has an Head and a double cavity. Tis dislocated, 1. Either *imperfectly*, where impulse is required only to the contrary part. Or *perfectly*, and when extension is necessary, 2. Or into the *external*, or *internal*, or *Back* part. Then the Tumor is in an unwonted place, the *Sinus* appears in a contrary situation: the figure is departed, the motions are weakened and perish.

III. The *Talus* or *Ancle* is Dislocated, 1. Towards the inside. Then the lower part of the

the foot, is turned externally, or towards the *outside*, and there tis contrarily turned. 2. Towards the forepart. Then a broad and strong tendon in the Heel, becomes hard and steched, and the foot becomes less. Towards the *hinderpart*; then because the joint is slipt to the Heele, the Heel is hidden, the sole of the foot is greater and the foot longer. The Cure ought to be made by Extension and Reposition.

IIII. The Bones of the *Pedium* and *Tarsus* never suffer Luxation. And those of the *Toes*, seldome, because they are underpropped with most strong ligaments and many tendons.

Title VI *Of Fractures in Specie.*

Chap. 1. *Of the more usual Fractures of the* Bodies.

THe third kind of External Diseases are *Fractures of bones*; which are either *more* or lese frequent. To the more frequent sort belong.

I. The Fractures of the *Brachium* viz. that Bone which is between the Elbow and the wrist; which if it happen in *both the bones*, seeing they have no propor stay, and the neighboring parts are easily hurt, it is the more dangerous: if in *one*, and that the uppermost which needs less extension, it is lesse dangerous: if in the *nethermost*, it is so likewise because the Elbow serves for a stay; and a swathing band is more safely hung on. The *Cure* requiers *Extension* and *Direction of the broken bone*, with joyning together, and reposition. It grows together within the space of thirty daies.

II. Of the *Humerus* or *shoulder*, whose bone being great, and requiring long time to breed a Callus, it is forty daies in growing together.

III. Of the *Crus* or that part which reaches from the knee to the foot. In which either Both bones are broken; and the whole leg may be bowed in: or the *Tibia* or shank bone, and the whol bone, as in a place without flesh, may easily be seene. And it is cured with greater difficulty, seeing there is need of greater extension. Or the *Fibula*, and the broken part bendes inward, and the Patient can sooner set his foot to the ground because the Tibia bears most of the bodies weight. These bones grow together within the space of forty daies.

IIII. Of the *Femur* or *Thies*, which If it be broken *towards the knee* or in the midle and diligent care be taken, they escape without halting. If towards the *Hip* commonly they halt after it. Both because, the bowing tending outwards, it is easily crooked Towards the inside, and towards the outside it bunches out like a bow as also because, being but one single bone, it cannot easily be kept in its place, It growes together in the space of fifty daies.

Chap. 2. *Of less Frequent Fractures.*

TO the less ordinary Fractures, there appertain the Fractures of.

I. The *Nose*, which is either equally flatted, so as to make a saddle-Nose; or it is broke only on *the one side*: or it is writhen aside by the *Gristle*: or the *bones* thereof are *broke* into *smal fritters*. There is Joyned, somtimes a wound, and somtimes an Ulcer is raised within the Nostrils. Unless the Nose be immediately rectified, it must for ever remain deformed.

II. Of the lower *Jaw-bone*, whose bone is either broken so athwart, that the *Bones nevertheless do in some measure hold together*: or so, that *one bone sticks out above another*, and one tooth sticks out beyond another. They are consolidated within twenty dayes, unless Inflamation happen. Also the teeth remain sound.

III. Of the *Clavicula*, or channel bone, which is broken either athwart, and is easily reduced into its natural seat by extending and compressing the same with a mans fingers: or *long-waies*, which has alwaies some Eminency, which can hardly be brought into order. Its fracture is knowne by the touch and by the pian. It is soddered together within the space of twenty daies.

IIII. Of the *Scapula* and that either *in respect of* the *shoulder tip*. and then Inequality is perceived, if the hurt part be compared with the found or in *respect* of the *broad part* Then a certain cavity is perceived by the touch. the Arme just against it, is benummed. If the fracture be in the *neck of the Scapula*, or in the *Jointing of the shoulder*, Inflamation is soon caused, because of the veins, Arteries and

and nerves which ſpring from the Vertebraes of the Neck.

V. Of the *Breſt-bone*, whoſe fracture is known, by the bones giving way when preſſed with the finger, by ſhortneſs of breath, &c. and it is dangerous becauſe of the Neighbourhood of the noble parts.

VI. Of the *Ribs* which are either ſo broken that the extremities of the broken bones, do neither go in, nor ſtick out: And then few are either Feveriſh or ſpit blood. Or ſo as that *the Ends of the Bones are out of their places.* Then the fleſh above the broken Rib is blown and heaved up: and if the place be preſſed with the hand, a noiſe is heard of the departing Air, Inflamation, Feavers, Impoſtumes, do for the moſt part follow. Or the *whole Ribs are not broken.* Then there is neither great pain, nor a Feaver.

VII. Of the *Back-bone*, which frequently, by reaſon of the hurt enſuing to the ſpinal marrow, the Membranes and the Nerves, eſpecially if the fracture happen by the *Vertebra's* of the Neck, proves *deadly*: eſpecially if a palſie either of the Arms and Hands, or of the Legs and Feet, do follow thereupon.

VIII. Of the *Patella* or *Whirl-bone* of the Knee, which is known, by inability to go, and an hollowneſs which is perceived in the place of the fracture. It *happens* either *long waies*; and then the bones are eaſily joyned together again. Or athwart or ſlanting. Then no art can ſo help it, as to hinder the Patient from halting.

IX. Of the *Bones of the Feet*, which is wont to be cauſed by an heavy and ſtrong thing. 'Tis eaſily *known* by ſight and touch, becauſe the parts are fleſhleſs. It is not ſo dangerous. See *Galen upon Hippocrates of the Joynts and Fractures.*

And ſo much ſhal ſuffice to have ſpoken, touching External Diſeaſes.

G THE

THE SEVENTH BOOK OF THE IDEA OF PRACTICAL PHYSICK.

Touching Feavers.

HItherto we have treated of the external Diseases of the Body. The *internal* are either *universal*, which affect the whol Body; or *Particular*, which vex some parts only. The *Universal* are *Feavers*. A Feaver is considered *generally* or *specially*. Generally considered, 'tis divided into *Non-putrid* and *Putrid*, *Hectick*, *Malignant*, and *Pestilential*.

Title, I. *Of Feavers in General.*

A Feaver in general, is an hot Distemper of the whole Body, arising from an Heat Preternaturally kindled in the heart, and by means of the spirits and blood, through the Veins and Arteries diffused into the whol Body, and hurting the natural actions thereof by a Crowd of Symptomes.

The *Part affected* is the Heart, wherein the heat is first kindled, and soon after the whol Body, at least in respect of the noble parts, sometimes. For the Heat being diffused, possesses the parts, either Habitudinally or Habitually. Also their temper consisting in the innate and influent Heat, is changed. Now this *Distemper* is joyned sometimes with dryness, other whiles with *Moisture*. Hence, though the feaverish heat do alwaies tend to dryness: yet oft times the disposition of the Body, upon which that heat acts, and the moisture, do hinder the Body from falling into a Morbifick Dryness.

The *Cause* is, whatsoever kindles Heat in the Body. Now heat is kindled. 1. By *Motion*, whiles the rest of the parts, by frequent smiting one against another, causing a conflux of more Humors than can be discussed, do grow hot. 2. By *Putrefaction*, while by the external Heat, the internal is called forth.

3. By

3. By *Contact* and *Nearneß of ſome hot thing.* 4. By *ſtopping* of the *pores* and interception of ſharp vapors and Sooty ſteams, which makes the body unhealthy; and this is the *Principal Cauſe*, without which other Cauſes can hardly effect any thing. 5. *By the mixture of ſome hot thing.*

The CURE of a feaver in general is performed by *Alteration*, wherein ſuch a progreſs muſt be uſed, as that the Cauſe be not fomented: and by mitigation of *Symptomes.*

The principal *Symptomes* are. 1. *Thirſt*, the inner coat of the ſtomach, being either parched with the burning heat; or ſoaked with an hot, ſharp and nitrous Humor. 2. *Hiccuping*, ſharp and biting Humors twitching and nipping the Stomach. 3. *Vomiting*, either by reaſon of an hot and Chollerick Humor; or a very cold Humor; or of a thick and Clammy matter; or ſome Vapour. 4. *Looſneß of the Belly*, when the ſtomach is ſo far irritated, that it can in no wiſe embrace or digeſt the meate: and when liquors extreamly cold are drunk down. 5. *Dryneß*, *Blackneß* and *Roughneß* of the Tongue, by reaſon of ſooty Vapours, which ſo burn the ſame, that the Spittleiſh moiſture is conſumed, which ariſe ſomtimes from a clammy humor ſticking about the Teeth & jaws, & beclam & fur the Mouth. 6. *Lipothymia*, and *Syncope*, *Swowning* and *Fainting*, which ſomtimes proceeds from the permicious nature of the Humor, and ſomtimes from ruſty, green or black Choler fermenting, and coming out of the Veins into the Heart. 7. *Shortneß of Breath*, occaſioned by the oppreſſion of the Midrif through the fervency of green Choler boyling about the heart, or by plenty of Humors: ſomtimes tis cauſed by the heat of the Heart or Lungs, when Choler and putrified matter, is inflamed about thoſe parts, or when matter ſwelling and fermenting in the Veins, ruſhes violently and ſettles it ſelf thereabouts. 8. *Head-ach*, *want of Sleep*, Apileptick Convulſions &c. Of which in their places.

Title, II. *Of Unputrid Feavers.*

Chap. 1 *Of the Feaver* Ephemera.

UNputrid Feavers are either the *Ephemera*, or the *Synocha ſimplex.*

The Feaver Ephemera *is a feaver which ariſes from the Inflamation of the Vital ſpirits in the heart, and continues the ſpace of one day.*

'Tis termed *Ephemera*, becauſe it tranſcends not the natural day, as the Beaſt Ephemeron, and Colchicum Ephemeron, a plant ſo called.

The SIGNS are: A ſudden heat ariſes in the Body, no loathing of meat, or wearyneſs without cauſe, deep ſleep, or frequent Yawning having preceeded, with none or very ſlight ſhivering, unleſs the Body be ful of bad juyce, diffuſing much and biting expiration, which by reaſon of the colds ſtopping the skin, or the cloſing up of the ſecret paſſages, being ſuppreſſed, ſmites the Nerves. The *Urin* in color, ſubſtance, and ſediment, is little or nothing differing from the natural, unleſs the Cauſe which brought in the Feaver, have raiſed ſome extraordinary mutation in the blood. The pulſe is more quick and frequent than ordinary: but yet, even, ordinate, great and ſtrong. Inſpiration is greater and quicker than expiration.

The CAUSES are procatarctick, of which in the differences.

The CURE is *eaſie*, unleſs it change into a Synocha imputrid, in a youthful and ful body; or into a putrid, the fourth or fift day, in a body Cacochymical: or into an hectick in an Hot, Dry, thin body. 'Tis *Abſolved.* 1. By *Alteration* through cooling and moiſtening things, given inwardly, and applied outwardly to the Region of the Heart, the pulſe and forehead. 2. By *Evacuation*, or opening a Vein if there be a plethora; or by gentle Purgation, if it ariſe from a redundanty of evil Humors and ſome light obſtruction. 3. By *ſtrengthening the Stomach*; Regard being had to the Humor and Symptomes.

The Differences of the Feaver Ephemera are taken from the cauſes.

I. One sort comes from *Cold Air striatning the skin.* Then the beginning is without shivering. The Urine and pulse are little changed, the Heat is more moderate in the state. Tis *Cured* by removing the Cause.

II. Another springs from *Buboes*, which is known by the presence of Buboes, by a swift and great pulse, by much heat, by a ruddy Face. 'Tis *Cured* by blood-letting, by which if blood be sufficiently taken away, the Bubo appearing a little, vanishes away by the use of repellers or relaxers: if not, it must by fomentations be brought to suppuration. *Vide B. 2. de Bubone.*

III. Another from *straitness* of the skin, which is known by the hardness and compactness of the Patients skin, other things being as in other persons healthy. It *arises* from plenty of blood, cold binding, or dryness. 'Tis *Cured.* 1. By *Blood-letting*, if the blood offend in quantity. 2. By *Purgation*, cutters being premised, where there is plenty of thick Humors, and sweat is wont to follow. 3. By relaxation with hot and moist things, temperate baths, moderate frictions, frequent washing, if it proceed from cold.

IIII. From *Crudity*, and that *nidorous*, which is known by the presence of such signs as attend a Diseased Stomach. 'Tis *Cured*, 1. By *Vomit*, if stomach sickness and Aptitude to Vomit, be present. 2. By *Purgation*, if there be danger in Vomiting. 3. By *Corroboration*, with Medicaments whose quality is opposite to the peccant Humor.

V. Another springs from *Heat of weather*, Anger, *Sad Pensiveness*, *Watchings*, *Wearyness*, &c. Of al which, consult with Practitioners.

Chap. 2. *Of the* Feaver Sinocha Simplex.

THe *feaver* Synocha *simple, or the* Ephemera *of many daies, is a Feaver without putrefaction, arising of the Boyling and working of the spirits and blood, without remission, lasting three, four, or more daies.*

'Tis termed also *Inflativa* or *Puff-up*, because when the blood works and boyles, the Vessels are distended, and a wearyness of the body is perceived.

Its SIGNS are wearyness which comes of it self, without any exercise of the Body. Heaviness about the temples and forehead. A certain Itch of the Nostrils, a gentle Heat. Moistness of the skin, with distention of the Members. A pulse great, ful, frequent, quick. Difficulty in fetching breath. Urine thicker and more red than ordinary.

The CAUSE is, the working and boyling of thin blood which arise from the hinderance of Transpiration, in a plethorick body, which sends forth many hot Vapours.

The CURE is not very *hard*, because it seizes for the most part strong bodies, or temperate ones, or such as are hot, or moist, of middle Age, of a fleshy, square, Alderman-like constitution, unless it degenerate into another sort. 'Tis *allayed and terminated*, sometimes by sweat, or by plentyful Nose-bleeding, within the fourth, or at most the seventh day; unless through some very great Error of the Patient, the Physitian, or the Assistants of the sick, it turn to a putrid feaver, or a greivous Disease which is wont to spring from fullness. 'Tis *performed.* 1. By *Blood-letting*, by which the Patient is cooled, and the encrease of Vapors is diminished: but it must be speedy, little in quantity, and divers times celebrated. 2. By *Evacuation* of the first Region, least more fumes be added to the store. *Tamarinds*, *Rhubarb*, *Syrupe of Roses solutive*, *Cream of Tartar*, *are good.* 3. By Alteration, which ought to be performed, by cooling potions, the spirit of salt and vitriol, being mixed therewith. *Clysters*, *Oxyrrhodines*, *Epithemes*, Bathes for such as are accustomed to them, but not before the Rigor of the Feaver be over. 4. By *Corroberation*, with *Manus Christi perled*, *Diamargaritum Frigidum*, Conserve of *Roses* Vitriolated, of *Wood-sorrel* &c. 5. By a cooling and Moistening Diet.

Title, III. *Of Putrid Feavers in General.*

A Putrid Feaver is *Generally* or *Specially* considered.

A Putrid Feaver in general, is a Feaver, which arises from hot Vapors, raised out of the Putrefaction of humors, which affect the heart, with a præternatural heat.

SIGNS thereof, are: *Invation* with shivering, and shaking, no antecedent Cause having preceded; No, nor no procatarctick, unless the body be so disposed that a small matter affects it. *Accessions* and Paroxysmes or fits,

fits, which yet agrees not with al. The *heat* at the beginning, is not biting, by reason of suffocation; biting in the augment by reason of a Fuliginous excrement. The *Urine* is crude, or obscurely digested. The *Pulse* is at first smal, the contraction swifter then the dilatation, by reason of plenty of sooty excrement. It *abates* upon sweat or some other Evacuation.

The *Causes immediate* are, putred vapors, sharp, biting, plentiful, so as they cannot be discussed. The *Mediate* is the putrefaction of humors, whose cause. 1. In the *first assault* of the Fever, is either *their bad nature*, contracted from meats of bad juyce, which soon putrifie, from il preperation and use of diet, and the faults of the Parts which serve concoction; or an *External agent*, where hindrance of *Transpiration* has place, *or* from the straitness of the pores of the skin: for hot things, in an hot place, if they have not freedom of aire, doe suddenly putrifie; *or* from the obstruction of the Vessels and Passages in the Body. *A Feaver Ephemera*, especially in hot Natures. *Heat* arising from the Nonnatural things; *Nearness* of putrified humors. 2. In the *Continuance*, is the *fault* of the parts ordained for Concoction. *Inquination or Defilement* remaining after the Paroxysme, which inserts the humors herein.

The *Cure* for the most part does not oppose the Feaver so as to neglect the Cause, especially if the Remedies for the Feaver doe encrease the Cause, unless the Feaver be very great. Yet sometimes we may resist the Feaver and neglect the Cause, namely when it is remiss. The safest way is so to direct the Cure to the one, as not to neglect the other. It is *performed*, 1. By *Blood-letting*, which must be practised, 1. For evacuation to put the blood in motion and to cool the same. 2. In continual Feavers on the third day, in intermitting Feavers after the third day; in all having first given a gentle Lenitive, if any thing reside in the first waies, and when the disease is most remiss. 3. When the evil humors are not in the first passages, but are mingled with the blood in *Vena Cava*. 4. When there is plenitude. It must be repeated the same day, if it be done for *Evacuation*: some time after, if for Revulsion.

II. By *Vomiting* rightly instituted, with *Aqua Benedicta Rulandi*, Asarum Roots &c.

III. By *Purgation*, & then Lenitives ought to precede, by reason of the stomachs weakness, and plenty of humors in the Mesaraick Veins, and stoppage of the Belly at the beginning; either by Clisters or Potions. Stronger Medicaments ought to follow. 1. There having *preceded* both *Coction*, which must be observed in Feavers, especially such as are continual and acute, according to the precept of *Hippocrates*; by which Nature assisted with art makes separation of putrid humors mingled with the blood: & *Præparation*, which opens the passages and waies by opening Medicaments (here Cichories, Endives, and Sorrels have place) and impediments in the humors are removed, where syrupe of *Vinegar*, of the *Juice of Citrons*, have place, and a dram of *Spirit of Tartar compound*, which must be given with caution in cholerick natures, by reason of the Treacle water. 2 Which *must be omitted*, if the Humors are not in the first passages, but mixed with the blood in the Veins. If the Humors are turgent, that is, either move to some determinate part, or are so disposed, that they may run violently into some part. For the feverish matter is wont at the beginning, though little, because like Leven it corrupts the rest of the humors, to be moved by nature, and either to be thrown out of the body, or to be thrust into the more ignoble parts of the body.

IV. By *sweating* provoked by *Sudorifick* medicaments, and that *not very hot*, least the Fever be increased, yet *sufficient*, least the matter should be only stirred, *administered* after other evacuations, least Transpiration should be more hindered. Yet is it allowable in the beginning, sometimes to give strong sudorificks, that the said ferment may be dissipated to dispose the patients body to sweat through the whol disease, that the body may freely transpire. To repeat it as often as need shal be, that the matter may be accustomed to expulsion. Salt of *Wormwod*, of *Centory*, of *Carduus benedictus*, Spirit and Rob or quiddinie of dwarf-elder, of Elder; Magistery of *Mother of Perle*, of *Crabs-Eyes*, *Antimonium diaphoreticum &c.* are commended.

V. *Diet*, in which are principally considerable 1. *Meat*, which ought to be of good juice, easie of digestion, of smali excrement; so that great respect be had to the patients strength, the disease, and morbifick Cause. The times of the disease it self must be observed, least the patients strength be overwhelmed. The Quantity, Quality, and manner of the use, ought to be weighed. Howbeit a more *liberal* diet may be used, the strength of the

Patient

Patien b eing diminished by Evacuation. A *thin* when it is weak by suffocation, that plenitude may be diminished, and nature the better betake her self to the Concoction of Humors. A *very nourishing* one, to preserve the strength. *Medicamental*, to drive away the Disease and its cause. At any time, when the strength is decayed, by Evacuation and fasting. In the declination or intermission, the Patients strength being suffocated by the vehemence of the Disease. 2. *Drink* which ought to be *nourishing*, in the Patients weakness. And *Medicinal* in reference to the Disease and its Cause. Such is, a Decoction of *Barley*, *Oxymel*, *Whey* corrected with Annis-seed, Fennel-seed and Cumin-seed. Cooling Juleps. In the first daies of continual Feavers *little*, afterwards more *plentifully*. In *Agues*, when the fit is near, *none at al*: least the separation and exclusion of the putrifying Humor should be hindred: when sweat is ready to break forth, *hot*, to further the same. The *Wine* in *Agues* must be austere and hard, because such Wine moistens, further excretions, and is more easily distributed into the body: in *continual Feavers*, about the beginning of Coction, little; in *quartans* before; in the *Progress* of the Disease, more. In the *Declination*, if there be weakness. The feaverish heat be not intense. Crudity of the matter prohibit not. Head-ach and like disorders be absent.

Chap. 1. *Of Continent putrid Feavers.*

Article, I. *Of the Synochus Putrida.*

Putrid Feavers specially considered are either *Continent*, as *Synochus putrida & Causus*: or *Continuæ Periodicæ*, or *Intermittents*.

Synochus putrida, *is a feaver arising from blood putrified in the vena cava without any periodical Remission and Intention, afflicting alike from the begining to the End.*

It is also termed *Pur*, Fire; because of its very great Heat. *Assodes* because it makes the Patient very unrestible. *Taraxodes* because it vexes the Sick with imaginary Apparitions. And *Pericaes Puretos*, the burning fever, because of the Excess of burning Heat.

The *Pathognomonick* or *peculiar Signs* are, *extream thirst* and burning *Heat*, howbeit the thirst is allaied by coughing, which causes an Afflux of humors. To these signes are added, great *tumblings and tossings of the Body*, by reason of great heat, and the acrimony of thin vapours, which in every part vex the body. The *Urin* is little in quantity, through plenty of sweat and heat, which consume the same: somtimes tis crude and troubled, which by the settling of the adventitious parts, and evaporation of the turbulent spirits, doth afterwartd waxe cleare; somtimes tis thin, very cholorick and flame-colored. The *stooles*, unless the dung be scorched and hardened by the feavers Heat, are liquid and saffron-colored, choler being shed into the belly and making the dung thin. The *pulse* is quick, frequent and unequal. swifter in the Contraction, because the Arteries by suddain compression, indeavour to expel those sooty vapours, which greiviously afflict the heart. *Breathing* is labourson, and expiration is quicker than drawing-in of the air, by reason of the extraordinary necessity of sending forth the fiery exhalations. The *Mouth* is bitter, because choler is soakt into the inner Coat of the stomach, which is common to it and the mouth. The *Tongue* is dry, and furr'd, and black, because the burning heat consumes the moisture of the tongue, and lodges its sooty vapours therein. *Raving*, by reason of the mounting of choler into the head; which if it follow trembling, tis a signe that the cholerick humor is transferred out of the veins into the Nerves, out of the nerves into the Brain. *Sleep* is somtimes profound, especially when the fever is not exquisite, but bastard; because thick vapours carried into the Brain, do stop the passages thereof.

The CAUSE is *Blood* putrifying, through a peculiar propriety of the liver, occasioned by meates of an over heating faculty: or from crude, cooling meats, apt to be corrupted &c. Which blood is either *Cholerick*, and then the symptomes specified in the definition are more vehement, and the feaver is termed *Causus exquisitus*, an exquisit burning feaver: or *Flegmatick*, & then the symptoms are milder & the fever is termed *nothus* a bastard burning feaver.

The CURE requires that we regard the Feaver, Its cause and the patients strength. The feaver is terminated by sundry excretions, especially when the patient happens to *shake* upon a critical day, the signes of Coction appearing: and that not by reason of the shaking, but because of the Excretion, whose forerunner is the shaking fit. Tis *performed*, 1. By blood-letting, that the burning heat of the Blood may be repressed, the plenty thereof diminished, and its faltiness corrected. It must be *done* at the *beginning*, while the pati-

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ent is yet pretty ſtrong, and becauſe the violent motion of the Diſeaſe, ſhews we muſt take time while we may. It muſt *not be done at al*, if the Feaver have its Riſe from Evacuation, faſting, journeying in heat of Summer, drying of the Veins, and conſumption of the Blood-water. Alſo when Age, Sex or ſome other thing prohibits. Then Scarrifications, Cupping-glaſſes &c. muſt ſupply its place. 2. By *Purgation*, with cooling choler purges, or temperate ones, as pulp of *Caſſia*, ſyrupe of damask Roſes. 3. By *Vomiting* if there be Stomach-ſickneſs and the ſtomach be vexed with Cholerick Humors, which is known by the Mouths Bitterneſs. 4. By *Alteration* and preparation with cooling Medicaments, where note, that there is then need of *External* Medicaments, when the feaveriſh burning is abated with internal coolers, and the putrefying Humor is for the moſt part drawn forth. 5. By *Corroboration* of the Patients ſtrength, with Electuaries, Lozenges, &c. 6. By *Mitigation of Symptomes*: of which ſee in the proper Chapter. 7. By Diet, of which ſee what was ſaid before.

Chap. 2. *Of a continual Periodick Feaver in general.*

A Continual Feaver keeping its Periods or Courſes, is *Generally*, or *Specially* conſidered.

Generally conſidered, it is a Feaver ariſing from Excrementitious Humors, putrefying in thoſe Veins, which are of a middle ſize, betwixt the greateſt and the ſmalleſt, Capillary or Thrid Veins; abating at certain Periods of time, without any Total Intermiſſion.

Its *Signs* are, that it *remits* of its Violence, and then grows again Exorbitant, at certain Periods of time, but *never intermits* ſo as to leave the Patient free from Feaveriſh diſtemper more or leſs. Its Exacerbations, or Exorbitancies, are not uſher'd in by any cold, ſhivering or ſhaking, nor does any ſweat follow its Remiſſions or Abatements. It is *exaſperated* at certain ſet Periods of time, both by the arrival of Morbifick matter to the Heart, by uneven quantities (becauſe of diſtance of place) if it do not exactly keep its times: and alſo by communication of new matter from the Members ſubſervient to the ſecond Digeſtion, if it hold punctually its times.

The *Cauſes* are *Excrementitious Humors* which are bred in the Spleen and Liver, either by their fault, or the fault of the *Chylus*; yet they may be bred in the Meſeraick Veins, and brought to the Liver. They are not only *jumbled together* with the blood, but alſo perfectly mixed therewith. Their *place* is the Veins, not the *greater*, for ſo it ſhould be a Continent Feaver; nor the *leſſer*, for then it ſhould be an Intermittent Feaver, or Ague: but of a *middle ſize* betwixt the great Veins, and the Capillary, which are ſmal as the Hairs of ones Head.

See the Method of Cure in the Sorts.

Article, I. *Of a Primary Continual Feaver.*

Point 1. *Of a Continual Tertian Feaver*

A continual Feaver ſpecially conſidered, is either *Primary*, or *Symptomatical*. The Primary is that which has no other Diſeaſe preceding as the occaſion thereof; and it is either *Tertian*, *Quotidian*, or *Quartan*.

A Continual Tertian, is a Feaver ſpringing from Cholorick Blood, putrefying in the Branches of Vena Cava, *which holds continually, but afflicts the Patient moſt, every third day.*

Its *Signs* are, the Symptomes of continual and burning Feavers, its being *exaſperated* every *third day*, by reaſon of the Nature of Choler, which is ſo moved. The Cauſe of its *Abatement*, is; both the diſtance of the place, where the offenſive Vapors are bred; and likewiſe their ſmal quantity, by which means they are all diſſipated, before any more can be bred to ſucceed in their place.

Its *Cauſe*, is Cholerick Blood, and whatſoever is apt to encreaſe Cholerick bad Humors in the Veins, and to make them putrefie, when ſo encreaſed. The *Cure* is *performed*, 1 By *Blood-letting*, (a Clyſter being premiſed) becauſe the Humor is mingled with Blood. 2 By *Alteration*, Lenitives being firſt uſed; in which caſe, a little Vinegar muſt alwaies be added to Syrup of Roſes ſolutive, that it may pierce more eaſily into the Veins, and not be turned by the Stomachs heat into Vapors, which will cauſe thirſt. *Give them* faſting, that Concoction may not be diſturbed. With *Moderation*, leſt they cauſe Crudities. *Spirit* of *Nitre*, of *Salt*, &c. are commended. *Topicks* muſt be applied unto the Heart, which is chiefly affected, but not before the ſtate. Not *cold*, leſt the Heat driven inward, and gathering Head, ſhould burn more fiercely. 3. By *Eva-*

Evacuation downwards, and that in *the beginning*, if the matter provoke, if it be plentiful, and the Patient strong. It must be performed by *gentle* Medicines, and let Rhubarb and Myrobalans, be given in their Infusions with cooling Waters, rather than in substance. *After Concoction*, if Nature be lazy. 4. By *Sweating* and *provoking Urin.* 5. By *Dyet* which must be contrary to the Disease, and its Cause. Such as are upon the mending hand, if the Feaver be terminated with a *perfect* Critical Evacuation, let them never eat to satiety. Often, and a little. Let them abstain from al Evacuations, save by stool. Let them use the *Electuary Diarrhodon Abbatis*, to strengthen their Bellies. If by an *Imperfect*, so that some reliques remain, let them purge the said Reliques, especially by Urine. Let them keep a thin Dyet.

The *Differences* are taken from the *Causes.*

One sort is *Cholerick*, from Cholerick blood, pure and exquisite, which the Liver being peculiarly affected, produces. This sort afflicts with sharper Heat, Thirst and Watchings. They are subject to it, who abound with choler. The pulse is vehement, swift, hard. The Urine flame-colord and thin. 'Tis *finished* in the compass of *seven*, or of *fourteen* Exasperations. It is not *deadly*, unless either some remarkable Error be committed, or some malignity attend the same.

Another is *Flegmatick*, or *Melancholick*, when Flegmatick or Melancholick blood is mixed with Cholerick: where together with coolers, things gently warming and cutting are to be mixed. 'Tis termed *Notha*, or a bastard Continual Tertian.

Point. 2. *Of a Continual quotidian, or every day Feaver.*

A continual quotidian, is a Feaver raised by the Phlegmatick Humor putrifying in the Branches of Vena Cava, *which is exasperated every day.*

Its SIGN is a daily Exasperation, which happens towards the Evening, because of the natural motion of flegm about that time; with heat, which is at first feeling mild, but afterwards more vehement, by reason of the slow and uneven kindling thereof, caused by the variety of the parts of Flegm. With a light coldness of the extream parts of the Body, which nevertheless, is not found in al these Feavers.

The CAUSE is, the Humor of Flegm putrifying, which is proper to old Men because of their coldness, to Children through their greedy eating. It Causes so pertinacious and stubborne a Feaver, that it lasts, somtimes, three score daies, its beginning reaching to the twentieth day; it vehemently weakens the Stomach; whence arises a *Cachexy* and *Dropsie.*

The CURE ought to be thus mannaged. 1. The first passages must be evacuated with Clysters, or Lenitive Medicaments, in which case *Honey of Roses* is effectual; or the Stomach must be purged with Vomit. 2. Let a *Vein* be opened, if Nature be oppressed with overgreat plenty of Humors, and the Urins be thicker and redder than ordinary. 3. *Purge by stool* when signes of coction appear, premising attenuators that heat not much; first with a gentle, then with a stronger Medicament. *Agarick* trochisked, *Hiera picra*, Pils of *Fumitory* are good in this case. 4. Procure *Sweatings*, after the matter is lessened, with Salt of Wormwood, and of *Carduus Benedictus*, and a little Treacle. 5. Let *strengtheners* be given, *viz.* Trochisks of *Rhubarb*, of *Wormwood*, and of *Agrimony*, &c. 6. Let the *Diet* be sparing for three daies, if there be Crudities in the Stomach, and in the first waies. At first give Hydromel or smal Metheglin to drink instead of wine or beer, and let no fish be Eaten, in the whole course of the Disease.

This Feaver is divided three manner of waies.

I. One sort is *Simple* and *Exquisite*, which arises only from flegm, and has fits eighteen hours long. Another is *bastard*, when flegm is joyned with other Humors.

II. Another is termed *Epiala*, in which in the smallest particles of the body (understand to the sense) both heat and cold are felt at one and the same time. It *arises*, either from flegm mingled with Choler; or from Glassie flegm which in that part that is putrified, is hot, in that which is not putrified, is cold. Tis *Cured* in the same manner that other putrid Feavers are, but we must observe. 1. That Bloodletting is hurtful. 2. That spirit of Nitre in Juniper water, is excellent to cut flegm. 3. That vomiting must not be neglected, which may be procured by six ounces of *Juniper water* distilled *per Descensum.* 4. Care must be had of the Stomach, which nine drops of Oyl of *Vitriol*, with three spoonfuls of the best Canary wil strengthen, and cut the flegm; or two ounces of *Aquæ Vitæ*, stilled out of Juni-

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per berries by way of Descent.

III. Another is called *Syncopalis*, by reason of the swoning fits; which is either *Minuta* so called, springing from a thin Humor, little in quantity, but venemous and corrupt: or *Humorous*, proceeding from plenty of Flegmatick and crude humors, with weakness of the stomachs Mouth, & frequent faintings away. The best way to proceed in the Cure is. 1. By *Rubbings*, in such whose skin is more than ordinarily hard. 2. By *loosing* the belly, with Manna and Cream of Tartar. 3. By *Digestion* and Evacuation of Humors, giving such things as are necessary for the Syncope. 4. By a *thin Diet*, in which wine may likewise have place.

Point, 3. *Of a continual Quartan Feaver.*

A continual Quartan Feaver, is a Feaver arising from Melancholy blood putrifying in the branches of Vena Cava, *whose heat alwaies endures, but is Exasperated and Augmented every fourth day.*

Its SIGNS are, obtuse *Heat*, but sharp and pricking, by reason of the Density and dryness of the putrified Humor which causes the Feaver. The *Pulse* at first smal, slow; and buryed as it were under the skin; afterwards great, ful, and swifter than in an Ague. Somtimes the Patient *Spawles* much, which argues either the overgreat moisture of the Stomach, or the Spleens fault, in not separating the Melancholy Humor.

Its CAUSE is, Melancholy blood, putrefying in the middle sort of Veins, and springing from its proper causes.

The CURE is altogether *hard*, both because it lasts to the fortieth day and further, unless peradventure it be a Summer Quartan: and likewise because, seeing that Humor is hard to putrifie, it argues there is a great cause. 'Tis *Performed*. 1. By *opening* the inner Vein of the left Arme. 2. Cy *Preparation* of the Humor, which must tend much to moistening. 3. by *Purgation* with Melanagogues frequently repeated, as also the use of sweaters, and piss-drivers. 4. by *strengthening* the Patient, with borrage, bugloss, Citron juyce &c. 5. by *Diet*, which ought to be cutting, moistening and cooling &c.

Article, 2. *Of a continual Symptomatick Feaver.*

Symptomatick Feavers, are such as follow upon other Diseases, which being removed the said Feavers Cease.

Their *Signs*, *Causes*, and *Cures* are to be drawn from those Disease which they wait upon.

Their *Differences* are sundry.

I. One sort is *That which follows the Inflamation of some inward part especially, and which is neare the heart, or has a consent and sympathy therewith*, the Vapors which arise out of the blood shed into the part inflamed, and putrifying there, being communicated to the heart, and heating the same. It is *as many-fold*, as the Inflamation is. The *Cure* respects the Inflamation.

II. Another sort there is, termed *Lipyrias*, in which during the whole course of the Disease, the inner parts are, as it were, burning up with Heat, and the outer parts meane while cold. It *arises* from a vehement inflamation or Eryspelas of some internal part, especially the Stomach, the blood and spirits having recourse to the part inflamed. Either the *Cure* is not to be undertaken; or if it be undertaken, resistance must be made inwardly against the putrefaction and extream heat; *external*, after the parts have been rubbed, heaters, and openers of the pores must be applied. In which case Oyl of Dill, and Oyl of Orice Root, with oyl of Vitriol, and strong spirit of Juniper berries are good.

III. Another is slow, which is *hereby known*, in that it afflicts with a gentle heat, with which appear the notes of putrefaction, in in the Urine and Pulse. It is not burthensome to the Patient by any grevious symtome. The Patient can hardly stir on his Legs for weakness. The bodie pines away by little and little. 'Tis protracted beyond the fortieth day. 'Tis exasperated by the use of Purgers. It keeps no order. It *arises* from putrefaction of matter shed forth of the Vessels into the substance of some bowel, or at least fast fixed in the Capillary Veins, which are dispersed through the substance of the bowels, and by its putrefaction corrupting the said substance. From whence Vapors cannot be carried towards the heart, in such great plenty, as in other Feavers. 'Tis *Cured* by aperitives,

attenuaters and detergents, appropriate to each part. We must also use *gentle Purging*, &c.

IV. Another sort there is *Which arises from the Putrefaction and Corruption of some Bowel.* From whence putrid Vapors are communicated by the Veins inserted into the heart, and heat the same. It is somtimes *more gentle*, otherwhiles *more Vehement.* It happens for the most part, in *Putrefaction of the Lungs*, in Fistula's that peirce deep into the *Cal*, *Nesentery*, Womb &c. The *Cure* is to be directed to the Ulcers and Fistula's of the internal parts.

V. Another, springs either from *Corrupt Milk*, as often betides Infants; or from *Blood* somwhere *Putrifying* without the Vessels; or from worms; or from *Crudity*, familiar to infants because of their greedy feeding, with swelling and inflamation of the Hypochondria; putrid Vapors being communicated to the heart. In the Cure, respect is to be had to the Causes and parts affected.

Chap. 3. *Of an intermitting Feaver or Ague in general.*

AN intermittent Feaver [commonly called an Ague] is a Feaver arising from Vapors which proceed from Humors bred in the Mesaraick Veins, Putrifying, and ever and anon entring the Vena Cava, *invading the sick person at certain set times, and ending with excretions, or Evacuations.*

It's SIGNS are, to *come* at certain set times, with shaking, shivering, or cold, the sensitive parts being vexed and nipped as it were with a sharp Vapor. To *end* by sweating. Urine, or passage of the Vapors through the pores of the skin; by scabbyness, if the thicker part of the Humor be thrust forth into the skin. Now, necessary it is, that it should *come at* certain seasons, and then remit, and come again. For there remains a defilement in that part which is the seat of the putrefaction, with a weakness also in the said part. Wherupon the affluent Humor though it be good, is defiled by the impurity of the part, as it were with Leven, and through the weakness of the parts it is corrupted. Now this *return* of the Feaver or Ague is caused. 1. Partly by the *diversity* of Humors, seeing it alwaies agrees to them, nor ever varies, into whatsoever body it happen: partly, because of a peculiar *Quality* they have, which ought either to be ascribed to celestial Causes; or it arises from a peculiar corruption. 2 It comes either *just at one* and the *same time*, or by reason of some external causes, which move the Humors it anticipates; or the Humors being diminished, it comes later. Also the fits are either *short*, if the matter be little, or thin, the bodies constitution not close compact, the Patients strength Vigorous; or *long* if the premises be contrarily disposed.

The next *Cause* is a *putrid Vapor*, arising from an Humor and assailing the Heart. Touching the humor three things are to be observed. 1. That it is a *Putrid* Humor, which appears by the Urine, which has in it signs of putrefaction. Nevertheless it does not *All* putrifie at once in the first Paroxysme, but only a *Part*, which is disposed to putrifaction: the rest in the following fits, til al be consumed. 2. That the *Hearth* and *Tinder* as it were and *place* of the said Humor, as wel out of the fit as in it, is the *Mesarick Veins.* Which appeares both by the stomach sickness, Vomiting, stretching and pain of the Hypochondria &c. With which the Patient is troubled; and *also* by the frequent Vomitings of Choler in very great quantity at the beginning of these feavers, which could not be evacuated in such a manner from the remote Veins; *likewise* because the approach of the fit is collected by the compression of the pulses at the beginning of the fit, which the Greeks terme *Epiſemasia*; and the matter is purged out by Urine, 3. That the said Humor is ever and anon transferred into the *Vena Cava* and the *Artery.* The truth is, Crudity and Coction are observed in Agues or intermitting feavers, as wel as in the continual. At first, the Humors are moved from the Circumference unto the Center. And seeing, the branches of *Vena Porta*, are inserted into the substance of the Liver, and their mouths communion with the *Vena Cava*, and the Arteries proceeding from the heart, are in the Stomach, Guts, Spleen, and elsewhere joyned to the mesaraick Vessels; the waies by which these Humors may be carryed thither, are evident enough.

The CURE of intermitting feavers or Agues is *Performed.* 1. By *Removing* the *Debility* consisting in the part, by altering Medicines. 2. By *Withdrawing* the Putrid *Defilement* with *Purges*, *Blood-letting*; if blood abound in *Vena Cava*, and be corrupted by Vitious Humors. By *Sudorificks*, which are of greatest force in this Cure Precipitating Medicaments are commended at first, as *Crollius* his

his pouder of snails shels, pouder *of mother of pearle* calcined four scruples, and the Magistery of Crabs eyes. Externally are applied, *Cobwebs* and *Populeon* Ointment, the *fish* we cal a *Tench* bound to the soles of the feet &c.

Article. I. *Of a tertian Intermitting feaver, or tertian Ague.*

An Intermittent feaver specially considered, is either a *Tertian*, or a *Quotidian* or a *Quartan*. Howbeit there are *Quintans*, *Septans*, *Ottans*, *Nonans*. But those modes of Agues are seldom seen, and are but certain sortes of the simpler Modes aforesaid, only a fit Two or three happen to be omitted. So a *Quintan* is a sort of tertian, in which the third day, is without accession.

An Intermiting tertian Feaver, or tertian Ague, is a feaver springing from excrementitious cholor putrifing in the mesaraick veins; afflicting every third day, with a cold shaking fit, which is followed with a hot fit and other symptoms.

Its SIGNES are Paroxysme or fit which seazes the patient every other day with a shaking cold. The shaking cold being over, much *Heat* arises, the pulse is at the first begining of the fit, smal, slow, afterward frequent. The *Urin* reddish &c.

The CAUSE, is a Cholerick filth in the mesaraick veins, either alone, or mixed with other humors, and putrifiing Springing from meats apt to be corrupted, or others fit to generate the same, and sending putrid vapours to the Heart.

The CURE is performed. 1. By *Evacuation* of the first waies with lenitive medicaments or clysters. 2. By *Vomit* if the matter tend to the stomach, and the patient be troubled, with Heart burning, stomach sickness and desire to vomit: but so as the humors be not thereby drawn out of the veins to the first passages. *Salt of vitriol*, *Asarum*, *Broome water of pismiers* or *Aunts*, are commended, if warily administred. 3. By *Blood-letting*, if the Humor have penetrated out of the first region of the body into *Vena cava*, which is known by the redness of the Urines; and it ought to be performed upon the day of the Agues Intermission. 4. By *preperation* with *cooling* medicaments, *moistening*, and such as *cleanse* the first passages. *Taraxacum*, or dandelion, *sorrel*, *Barly*, *Cichory*, Spirit *of vitreol*, Cream of tarter, *Tartarum vitriolatum*, syrup of *juyce* of *Citrons*, are good: also these *specificks* *Centory*, *Devils-bit &c.* 5. By *purgation* downwards, and that for the most part on the wel day; yet on the fit day, if the matter of it selfe encline to go away by stoole. *Rubarb* is good, and syrup of Cichory with Rubarbe. 6. By *sweat*, procured by sudorificks, salt of *wormwood*, of *Centori* of *Cardus*, *Harts-horn* prepared, Magestiry of *Mother* of *Pearle*, which are to be given either before the fit, or in the end thereof. 7. By *strengthening* the Liver and stomach. Salt of *wormwood* dissolved in spirit of Niter, and againe coagulated into Christals, is good, being taken to the quantity of a scruple. 8. By *application* of *topicks*, such are the *Cataplasme* of Mynsichtus P. 368. The pouder of a dryed manchet beaten with greene sage; the white of an egge and a little vinegar being added, and so bound to the wrist. The Herb *Potentilla* wild tansie or wild Ægrimony, beaten with salt and vinegar, and so applied, to the pulses and the soles of the feet, in the fit. A *Cataplasme* or pultise, of Bryony Rootes, Black Hellebor, bay salt, white pepper, saffron and figs. 'Tis divided into *Exquisit*, *Bastard*, an *Pernicious*.

I. The *Exquisit* Intermitting Tertian, is hereby known. 1. In that the *shaking coldnes* at the first comming is *vebement* and pricking, arising from an humor and Vapour very thin and smal in quantity shipping out of the veins. 'Tis *smal*, if the matter be plentiful; and not easily moved: more *vehement*, by how much the matter is thinner and sharper, the expulsive faculty stronger, and the sence of the parts more exquisite. 2. In that the *Heat* is much sharp and biting, and spreads it selfe al over the body in the Hight of the Hot fit. And if you hold your hand long upon the patient, it grows gentler by reason of the easy discussion, at what time the body is al over bedewed with a gentle moisture. 3. In that the *pulse* at the Beginning of the fit, is smal and slow, the matter being not yet conquered by the oppressed heat, yet is it not drawn back; in the Progres of the fit, 'tis vehement, swift, frequent, a little hard straitned by reason of the store of matter newly inflamed like green wood, more swift in the Intermission of the dilatation, by reason of the heat of the smal quantity of humor, remaining in the Chimney of putrefaction, communicated to the rest of the humors, and carried to the heart. 4. In that, the *fits* last not above twelve howers. 5. In that the Urine is reddish and yellowish, of a midling Consistence, shewing a white cloud or a swim, in the first fit:

and then the Ague lasts not beyond the fourth fit. It arises from choler, sometimes resembling that which in the Gal-blader, regurgitating into the first passages, somtimes verdigreise colored or green, bred in the stomach and veins. The *cure is now of the hardest*, for 'tis terminated for the most part within the compass of seven fits. It is *ended* either, by *sweat*, if the humor be cast bak into the veins which are in the surface of the Body; or by *vomit* and *stoole*, if to the stomak and entrals: or by *name* of these, if a great part consist in the misaraick veins; and then the patient feels a pressure, pains and Inflamations about the midrif. *Blood-letting* must be administred, before the third fit, least it fal in with the state of the dissease.

The *Bastard tertian*, is hereby knowne, in that the Heat is milder, nor is it diffused through the whole Body. In that it is terminated neither by vomit nor sweat, but by egresse of vapours in the Declination. In that the *Pulse* is at first hard, the hardness encreasing til the seventh day, growing afterwards more soft, as the Urines become better digested. In that, the fit lastes, many times, eighteen houers, and the Ague reaches to the fourteenth and somtimes to the twentyth day. It *ariseth* from *cholor* mixed with melancholy or flegme; nor is it generated only in summer, but in the Spring, Autumne, and Winter. In the *Cure*, a vein must be opened after the third fit, when a good quantity of the morbifick matter, is mingled with the blood in *Vena Cava*. In the *Praparation*, we must have an eye to the Diversity of Humors.

III. The *Pernicious* Tertian; which happens from seven causes. 1. If an *Error* be committed by the Patient or Physition. 2. If that *Humor* which ought to be sent out of the vessels, by reason of their closure, do come to settle in some principal member. 3. If it be too *Thin* and putrid. For thence come frequent swownings, and over great sweats without any ease to the patient. 4. If it have some *peculiar pravity*, either through *adustion*, or badness of diet. For the humors being inflamed, *roughnes* of the tongue, and unquenchable thirst are thereby caused. Holowness of the *eyes* by reason of the wastings of spirits. *Fiery* Urin with cholerick stools. An ulcerous pain of the whole *Body*. Paucity of *sweat*, by reason of the thickness of the matter. 5. If a *thick humor* melted by heat, settle in some part. Hence follows, by reason of the difficulty and faculty of 'tis inflamation, an inequality of being heated. The melting and plenty of a thick humor and which semed to be little in the greater vessells, but by rarefaction caused by Heat, it becomes in the smal vessels more in quantity. Hence it is that the hot fit is interupted by a cold, and the cold fit by an hot. The Urin becomes watery, of much and thick sediment. The pulse is sometimes intercepted. In the declination, sweat issues from the navil to the head. Neither Augment, nor state, nor decrinotion are equal. 6. If it a contagious or pestillent malignity. 7. If the Heat either draw the womb in conceit, and move the humors contained therein, or cause a dangerous Catarh, Tisick, or Gout.

Article. III. *Of a Quotidian Intermittent.*

A Quotidian Intermittent, is a feaver arising from flegme putrifying in the misaraick veins, and afflicting the patient with every day a fresh fit.

'Its SIGNS are. The foregoing of such causes as breed flegm. 'Its dayly *Assaults*, which are for the most part in the night time, whence it is more dangerous, by reason of the unseasonabelness of giving Physick at that time; and they come with a shaking and Cold fit. Which Heat slow, vapours, nor very burning when it has dispersed it selfe through the Body. The *Urins* at first white, thin, and crude; when the matter is digested, thick, troubled and often red. The *Pulse* is exceeding smal, seldom and slow. The *fit* lasts eighteen hours and somtimes twynty four. *Vomiting* and *Sweating* if they happen at first, they proceed from strength of nature and thinness of the humor.

The CAUSE is, *Flegm* putrifiing in the Masaraich veins, which is colected by means of the heat of the bowels diminished, cold and moist kind of diet. superfluous feeding upon such matter. It *putrifies* through the causes aforsaid.

The CURE is frequently *hazardous*, both because it lasts forty daies, yea three months and longer: and also because hurting the stomach and liver very much, it throwes the patient into a Cachexy. 'Tis *performed* 1. By *preparationof the petcant matter*, by convenient medicens, moderaly hot, which a clyster and gentle vomit may proceid. 2. By *evacuation* of the the *said matter* being concocted, by *vomit*, where extract of *Esula* and water of *radishes* and green walnuts, distilled with

with vinegar, are good. By *purgation* of flegm and sweat. 3. By strengthening the *stomach* and *Liver*. 4. By *Diet*.

It is differenced according to the causes.

I. One sort comes from *thick flegme*. Then the *urin* is white and thin, but by little and little it begins afterwards to grow reeddish, and the settleing becomes thicker and the patients mouth is continually ful of watterishness. It requiers strong *medicines* to digest it, and those frequently repeated; to which, preparations of tartar, ought alwaies to be added. Vomiting is profitably procured with *mercurial* pils. 'Tis good to purge with an infusion of the species *diacarthami*, senna and ginger in Centory water, some drops of spirit of vitriol being added. Once in a week one dram of Venice Treakle may be given.

II. Another is from *thin acid flegm*, and then there is paine in the forhead and left Hypocondrium, costivness, and acid belchings. It must be *scilfully* cured, least it turne to a quartan. The liver veine of the left side may be oppened. Before the fit, some specifick medicament must be given.

III. Another is from salt thin flegm. Then saltness and drineſs are felt upon the tongue. The Urin is red and thick, with sense of heat and sharpness in the making. The Liver vein on the right side arme may be opened.

Artickle. III. *Of an intermitting Feaver or Quartan Ague.*

An Intermitting Quartan, is a feaver arising from melancholy blood in the misaraick veins, which takes the patient every fourth day.

'Its SIGNES are; Reachings and yaunings, with a shaking fit after, which at first is smal, but afterwards like those that in the extremity of winter are pained with the cold; for it does not so much prick as beat and bruise as it were. The *Heat* is kindled by degrees, because of the thickness of the matter. The *Paronysmes* returne every fourth day. The *Pulse* is rare and slow, but in the vigor of the Fit, swift and frequent. The *Urines* are at first thin and watery, afterwards more colored and thick. The *Sweats* are at first very smal, afterwards exceeding plentiful.

The CAUSE is a Melancholly humor, collected and putrefiing in the Mesaraick veins, about the spleen and neighboring Bowels, arising from Causes like it selfe, among which *Vinegar* is one.

The CURE is wholly difficult. For 'tis a long lasting ague, and somtimes reaches out for certain years; especially if it begin in the Fal of the leafe. But, 'tis *more difficult*, when it springs from black cholor: if it happen to old people, whose weake heat, cannot overcom the Matter. If it be a double ague. If it be joyned with some greivious Affection of some of the bowels. *Easyer* if it be a legitimate Quartan, and unattended by any disease of any of the Bowels. otherwise such as are taken with a quartan Ague, are little troubled with Convulsions; or if they are, the matter turning towards the Hypocondria, and remaining no longer mixed with the blood in the veins, they are freed of cheir Quartan Ague. 'Tis performed, in *general* first by *gentle* then *stronger* medicines. In *perticular*. I. By *opening* the Basilica or Mediana *Veins*, at the very first the first passages being cleared, if plenitude of blood requier so much; not so soone if there be no plenitude. Blood plentifuly, if the blood come thick and black; stop it quickly, if it rune thin. II. By *preparation* and *Coction* of the pecant matter, reapeated with moisteners, and splenicks; such as *fumitory*, Maidenhair, Ceterach, Roots of *Eringos*, Decoction of *Turneps*, syrup of fragrant apples &c. III. By *evacuation* thereof, either by *vomiting*, after which a dram of venice Treacle may be given, before the following fit, mixed in a cup of wine: or by *stool*, to which end are good in the first place the *Pilulæ Tartareæ* of Quercetanus or Senertus: afterwards extract of black Hellebore; at last the pils of *Saga penum* of *Camilus de Camilis* in *Quercetans Pharmachopœia*: or by the *Hæmorrhoides*, leeches being applied: Or by *Sweats*, which may be wel procured by *Treackle*, *Antimony diaphoretick*, or six or ten grains of sal Armoniac purified in Cichory water, before the fit. The patient being strong and Coction appearing, a purge is happelly given a little before the fit. IV. By *strengthening* the *bowels*, especially the *spleen*, by their appropriate remedies, such as wil not augment the feaver, both external & internal V. By *Mitigation* of *symptoms* of the shaking cold by treacle, or Aqua vitæ given four hours before the fit. Of the *Backpaide*, by application of *Hartman* his faccolus in his *Chapter* of the quartan Ague. VI. By *Diet*, where observe, that we must order absence from al kind of food, on the fit day, wine that is ripe and thin may be alowed. *Apropriate* medicaments in this feaver are, *Amoniacum*

seven

seven times sublimated. Pouder of *Vipers* given the Quantity of one scruple or half a dram, before the fit in some convenient Liquor. An *Hares Heart* prepared like Fox-Lungs. Oyl of Myrrh, from four to eight drops, before the fit.

The Quartan Feaver or Ague is distinguished *two manner of waies.*

I. One sort, springs from *natural Malancholly*, in which we must go to work with moisteners and moderate heaters.

Another, arises from *aduſt Humors*, which *is known* from decay of Appetite, vehement thirst, Head-ach and redness of Urine. It *arises* from such things as burn the Humors. In the *Cure*, we use things moderately cooling, to which in the progress of the Disease, Cutters and attenuaters ought to succeed. A Bath of *sweet fair water* is commended, or rather to wash the Feet therein.

II. One comes *of it self, without another Disease foregoing.* And then a Diet somwhat thin is good at first; afterwards somwhat grosser; and then agin towards the state, somwhat thin.

Another *follows other Diseases.* Then a thicker kind of Diet must first be used. Afterwards the state, it must be somwhat diminished. In the fit nothing must be taken.

III. One sort is *gentle*; of which in the premises.

Another is *dangerous*, which is known hereby, that on the fourth day the fit retures, with extream weakness, the Urine being exceeding red and troubled. It *arises* from burning Diseases, black choler being bred by the aduſtion and turning to ashes of the Melancholy Humor, or yellow choler. Tis cured with extream difficulty.

Article, VI. *Of compounded Feavers, Particularly the Semitertian.*

Feavers compound are, when one Feaver is joyned with another.

This *Conjunction* is various. For *somtime* a nonputrid is joyned with a Putrid: somtimes a *putrid* with a Putrid; and that, either with a continual or an intermittent; with an intermittent; or contrary wise.

The SIGNS are the same with the Signs of simple Feavers, especially the return of cold, shivering and shaking after some respite. After many shaking fits, one hot fit; or after a cold fit, no sweat. The *Contaction* of the pulse is most frequent, by which we gather a new motion of the matter and a new fit to follow. The *Cure* is *Hard*, because they vex more than simple ones, and there is hardly time to use help. It is *apparent* from the cure of the simple Feavers. They are variously divided.

I. Some are *confused*, when two Feavers begin and end at one time, so as hardly to be distinguished; because divers Humors mingled together putrifie in the same place. Others *Implicit*, when the nature of each may be distinctly known.

II. Some are *Subintrantes*, interfering; when the fit of the second begins, ere the fit of the first be over. Others are *Coalterna* keeping due times, so that one fit being done, after a smal space another begins. Other *Communicantes*, when the fit of one begins presently after the fit of the other.

III. Some are *Intermittent*, under which are comprehended. 1. A *Tertian*, both *double*, which comes either once a day or twice; arising from choler putrefying in two places of the Mesaraick Veins; and *Triple* which comes thrice in two daies; once in one day, twice the other; and springs from choler putrefying in three several places. 2. A *double Quotidian*, which comes twice in twenty four houres. 3. A *Quartan*; both *double*, which leaves one day free, and comes the two next daies following: and *Triple*, in which the Patients are sick every day. Both these are wont commonly to proceed from an unseasonable use of hot Medicaments, especially Sudorificks.

IV. *Some* are *continual*, such as is the *Semitertian*, For it is a *Feaver compounded* of a continual Quotidian, *and an intermitting Tertian, vexing continually, but the third day with a shaking fit.* It is *known* by the signs of both Feavers. It *arises* also from the same Causes, but most frequently from the Inflamation of some of the Bowels. 'Tis *Cured* with difficulty. For it is not simple, but compound. It frequently overthrows the stomach. It hurts the Nervous parts, which is wont to be the ground of its long lasting, and vehemently stirs up what lies in the depth of the Body. Respect had to the Feavers and their Causes, *Agarick* among Purges bears away the Bel in this Case. 'Tis *divided* two manner of waies. For 1. One is *Legitimate*, when the Quantity of Choler and Flegm are equal. Another bastard, when choler exceeds Flegm, or Flegm Choler. 2. One is *Malignant*, Contagious and Epidemical, which is known by signs of Malignity. Another is of

its

its *own Nature intermittent*, but with the Inflamation of some Viscus or Bowel, which is caused, when part of the feaverish matter, is thrust with the blood into the Entrals, stomach, Liver and bordering places. *Thin*, a Symptomatick continual Feaver is raised. There are signs of Inflamation. The shaking fit happens, *somtimes* ordinately according to the Nature of the Intermitting Ague, *somtimes* inordinately, when the Inflamation happens to a new part, or when Quitter is made. The *Cure* depends upon the Cure of the Intermitting Feaver, and of the Inflamation of the Bowel. See *Spigelius* of the subject.

Title, IV. *Of the Hectick Feaver.*

AN Hectick, is a Feaver arising from heat, in such sort Occupying the parts of the Body, that though it be fomented by no cause, yet it continues.

Its SIGNS are these; *Heat*, which causes no pain, because the solid parts are already altered. 'Tis weak at first; because of paucity of Vapors; biting afterward, because of the solidity of the Parts. In the Arteries greater because of their correspondence with the heart. An hour or two after meals, 'Tis augmented, because of the Humectation of the dry and solid parts; freely, without compression, without Horror and Rigor, with a great and swift pulse; the Meat being distributed it ceases. It also dries up al the radical moisture, consumes the secondary Humors, and melts al the fat in the Body.

Its CAUSE is, either other *Feavers* either burning or long-lasting; or Diseases of the internal Bowels, as cheifly of the heart, and parts in the Chest, the Kidneies stomach and Midrif. Or *External Evident Causes*, very vehement, which consume much of the substance in the solid Members, raise up very great and long heat, yet introduce it not into the solid parts before they Have introduced it into the spirits in the first place.

The CURE is perfected. 1. By *Humectation* and *Refrigeration*; *Internal* by flowers of *Violets*, *Borrage*, *Bugloss*, four coold seeds, Milk of Perles, of Corals, and other gentle things, least the weak heat of the Patient be overwhelmed. *External*, as *Baths* of fresh water, of Milk, of Oyl Olive. *Noin-tings* of the *Back-bone*, as with Oyl of sweet Almonds and of Violets. 2. *With convenient Diet*; Here Womans brest Milk, Asses Milk, are of use, unless there be a Putrid Feaver. *Meats* of Almonds, Pine-kernels, Pistachios &c. *Broaths of* Snailes, waters of Capons, Eels, River-Crabs of which see *Joel* in his fift Tome, *Aqua Mirabilis Ferdinandi*, which is made *of the blood of a young Hog newly beheaded two pints, one pound of Venice Terpentine, half a pound of scraped Lycoris, Corants five handfuls, fifty Figs, Orice Roots three ounces Pine-Apple Kernels claensed three handfuls. Tobacco Leaves two handfuls. Crums of bread half a pound distilled in a Glass Limbeck.* The dose is two ounces with Sugar. See him in his Observations History the 21.

An Hectick is divided two manner of waies.

I. One sort is *without a Consumption*, when the dewy moisture of the parts is not yet consumed. When it *begins*; tis hardly known, unless a man may gather it from the bodies leanness, its Chollerick Complexion, and straitness of the Brest. In the *Progress* an Ephemera being present, the Heat lasts beyond a day with encrease; about the third day, the heat is encreased after meat.

Another is *with a Consumption*, and is two-fold *the one cald* Marasmodes, *when the dewy moisture is consumed, and the fleshy substance begins to be preid upon. Then* the body grows leane, the Temples fal, the palms of the Hands and soles of the Feet, are hot; and those other accidents follow, before mentioned. The stooles have a greasie substance among them. It is also voided by Urine, not much at once as in persons of good constitution; nor with pain or the Kidneis, as in solution of the fatness of the Kidneys; but slowly, and a little at a time. Sediment like bran is seen in the Urine, without any Disease in the bladder, swelling of the Thighs, and a looseness, which threatens Death. *Another* is when *the Fibrous and Membranous substance, is violated by the Feaverish heat.* Hence follows the Marasmos, which happens somtimes to Young and Old Preternaturally: somtimes through defect of Aliment, and extinction of the natural heat, either in regard of Age, or of some Scirrhous Tumor. See thereof, *Joel* in the foresaid Tome.

II. One sort is *simple* to which what has been before said in general may be applied.

Another

Another is *Complicated*, and that either with a *Putrid intermittent*, and then the greateſt part of the Heat remains in fiery, and the leaſt is come into Act. The fit being finiſhed, the places of the Arteries grow hot, the other parts are temperate. The Pulſe looſes not its frequency and ſwiftneſs, and the Patients meat does not encreaſe ſtrength. Or with a *Continual Putrid*, and then tis hardly known. The dry heat remains after the end of the declination, or of the whole Feaver. The Body is more extenuated. The Urine is fatty and Oyly.

Title, V. *Of Malignant Feavers.*

Chap. 1. *Of Malignant Feavers in General.*

HItherto we have treated of Benigne or wel affected Feavers: the *Malignants* come next, which are *Generally* or *ſpecially* to be conſidered.

Malignant Feavers generally conſidered, are Feavers ariſing from ſome hidden cauſe partaking of a Venemous kind of Quality, cauſing more grevious Symptomes than ordinary, and yet not killing many, or ſuddenly,

Their SIGNS are, great *weakneſs* from the begining, without any manifeſt Cauſe, more than the Feaver and Feaveriſh heat could probably produce. *Pulſe* frequent, Smal, Weak: or if the Pulſe being natural, ſeem to deceive, tis known by the preſence of other Symptomes. The *Urins* are ſome times, in the firſt daies, like thoſe of heathly perſons: ſomtimes thick, colored, troubled, having a thick red and troubled ſediment. The Heat milder than futes with the Nature of the Diſeaſe and Symptomes. A Maſs of Symptomes, animal, Vital and natural. Swellings or ſpots break forth &c.

The CAUSES are, either the *Diſpoſition* and *Plenty* of *Humors*, or *Contagion*.

The CURE is *Hard*, if greater and more conſtant Symptomes appear. Dropping of blood at the beginning ſignifies the working of the Humors, their bad Quality and the Patients weakneſs. Tis performed bp Bezoardicks and other things of which in the Differences.

The Differences of Malignant Feavers are taken from the Cauſes,

I. Some are from the *Bad Diſpoſitions of Humors* and *their Plenty* whether in the ſtomach, about the Midrif, or in the firſt waies. They are *known* by Stomach-ſickneſs, Pain, Heat, Bitterneſs of the Mouth, anxiety and other tokens. *They ariſe* either from corrupt meats, or from ſome other cauſe. *Are Cured.* 1. By *Blood-letting*, which ought to be Practiſed after the Evacuation of the firſt waies by Lenitive Medicaments, leaſt a greater Ebullition and working of the Humors becauſed, and that before the fourth day. 2. By giving of *Sudorificks*, which neither augment the Feaver, nor are very ſtrong, that either the Body may be diſpoſed to ſweat, or at leaſt the Malignity may be expelled. 3. By *alteration* and preparation, with ſuch things as ſtop the Commotion of the blood and reſiſt the malignity thereof. The Juyce of *Citrons*, *Pomegranates*, and the Root of *Scorzonera* are commended &c. Yea and alſo the ſpirit of Vitriol with other Syrups, unleſs the Patients be aged and lean: and unleſs their Lungs be otherwiſe diſeaſed, than through flegm ſtopping the Veſſels. IIII. By *Purgation*, which ought to be effected by gentle Medicaments and ſcarce before the fourteenth day. V. By *giviug* cooling diureticks, if the matter of the Diſeaſe go that way. VI. By application of *Topicks* to the Pulſes and the heart al the time of the Diſeaſe. VII. By mitigation or taking away ſuch *Symptomes as ſhal happen*. VIII. By *Diet*, in which we muſt abſtain from wine, unleſs faintings happen. A Decoction of Harts-horn with ſuch a Quantity of ſpirit of Vitriol, as may cauſe a grateful acidity; to which a little Julep of Roſes or Violets may be added; muſt be given. They are divided *two waies*.

1. Somtime *there is no Poyſon*, but the Diſeaſe is urgent, by reaſon of the Cauſes Vehemence, or ſome evil quality conjoyned. Somtimes *there is an hidden Venemous Quality*. 2. Somtimes the *Putrefaction* and Malignity are equal. Somtimes the *Putrefaction* is greater *than the Malignity*. Where the firſt waies muſt be Evacuated, not only by Clyſters, but alſo by Syrupe of Roſes ſolutive, Caſſia, Tamarinds, &c. Somtimes the Malignity is greater than the Putrefaction.

Some ariſe from *Contagion*, in which the *Cure* ought to be undertaken by Sudorificks and

and Antidotes, and Nature must be assisted if she expel any thing.

Chap. 1. *Of the several sorts of Malignant Feavers.*

Article, I. *Of the smal Pocks.*

MAlignant Feavers specially considered, contain under them, Feavers with *smal Pocks*, *Meazels*, and such like Eruptions, the spotted Feavers, *Sweating-sickness* of *England*, The *Hungarian* Disease, the Feaver with the *Cramp*, and the Feaver with a *Catarrh* and Cough.

The Smal poxe are pustles arising by means of the expulsive faculty on the surface of the skin, and parts that hold proportion with the skin, with a continual feaver, by reason of a peculiar boiling of the Blood.

The SIGNES of the smal poxe when present are needless, for they appear to our Eyesight. That they wil shortly come forth, is signified by paine of the head with heavines of the eyes, also of the neck and back, itching of the nostrils, Diminution of Respiration, dryness of the cough; trembling of the Feet the when patient turns, frequent sneesing panting of the heart. The *Urin* is somtimes like that of Healthy bodies, the vitious matter being driven into the outward parts of the body; somtimes it is troubled by reason of the great working of the Humors. Tears bursting out of the eyes without any cause of sorrow. A feaver raise by the working and boiling of the humors. Spod breaking forth of the Body &c.

The CAUSE is either external viz. Impurity of the Mothers Blood, which the infant in the womb atracts in the last months, because there is none purer. This blood being drawn into the whole fleshy substance, is for some yeares insensibly hidden: at length no longer able to beare it, it begins to ferment like new wine or beere that works; by which frementation or working, the pure is seperated from the impure; the impurity is drawn forth by a certain kind of Crisis, and the Heat is crumunicated to the heart, and a feaver raised.

Or *external* or *contagious*, when out of Bodies so diseased, a sickly vapour is comunicated to another: or the *Air* which by reason of the Influence of the stars or other causes, does either rupt the humors or set them in agitation.

The *Physitians care* has two scopes. I. *Preservation*, which in persons of years is contrived by blood-letting, purgation and taking heed of the Infection; and in infants only by the last means of the three. II. *Curation*, which is *Hopeful*, if they soon break forth, and appear high above the skin, great, seperate, white or red; If the Heat abate after they are broken forth; if large bleeding at the nose have proceded; if no greivious symptoms attend them. *Doubtful*, if either they come slowly out, or go in againe; if they are of violet color, green, lead-color, hard, and touching one another; If the feaver abate not after their breaking forth; If the patient breaths not freely, faint away, and other symtoms be present. 'Tis *performed*, I. By *mittigation* of the *Ebullition* or *fermentation* of the Blood least over Ebullition produce more greivious symptoms; which is effected by blood-letting and light purgation in persons grown up: by Clysters of the decoction of barly with fresh butter, comon sugar in Infants; or by giving them syrup of Citrons and syrup of violets mixed together, or a bit of pomecitron. II. By *assisting nature in the expulsion*, where impediments are taken away by the foresaid remedies; and the malignity is likewise resisted. Expulsion is furthered by *Pulvis Foelis* in his 4, Tom, Book 9. sect. 5. of the seeds of *Nasturtinm* or *water cresses* and *brooklime* of each one dram, pouder of Unicorns horn one scruple, or of harts-horn half a dram. Red *coral pearls* prepeared of each a scrupel. Make al into a pouder. The dose one dram or an half dram. The *decoction of figs* of Mynsichtus in the 25. section of his Armamentarium. *Terra* Sigillata of Silesia, Seed of white turneps. A decoction of lentils unhusked, with fennel-seed and gum dragant, &c. III. By *defence of the parts*. To which end the eyes must be rubbed with pure gold; or nointed with plantane and eye bright water and a little camphire and saffron. If they cannot be opened, they must be fomented, either with hot milk, or a decoction of Barly. To the *Nostrils* a nodule of sanders and camphire dipt in rose water, must be applied. If shut, they must be nointed with oyle of sweet almonds. The *throat* must either be smeared with diamorum, or washed with a decoction of plantane and barly, with Honey of roses. The ripening of the poxs, must be furthered, with anointing the same, with oyl of sweet almonds. When they are ripe, they must be opened with golden or silver pins, that they may leave no warts behind them. They must be washed with a water distiled of al manner of flowers and mans fat,

or with oyntment of *Foresius*. IV. By *removing* the symptoms which appear with, or folow the same: now they are, *Epilepsy*, and *convulsion* when the membranes and nerves are beset with poxs; and the *palsy* when they are thereby obstructed. *Hard swellings* which must be dissipated by emollients, without suppuration. External *Ulcers*, *Dysentery*, where emollients are to be avoided and such things as dry and stop without acrimony, are to be used. Hearing *impared*, where evacuation being premised, either vesicatories or vapours received into the ears are useful. *Inflamation* of the Eyes, &c. Of which see in their proper places.

Article. II. *Of the measels and such like Breakings forth.*

The Morbilli or Measels, are smal red pushes breaking forth upon the skin, with a continual feaver, caused by the expulsive faculty, and a peculiar working or boiling of the Blood.

The *Signs*, *Causes*, *Differences*, *and Cure*, vary not much from those of the smal pocks: of which we newly discourſed.

Like Breakings forth to the measels are.

I. *Crystalli*, *Cristals*, pushes about the bigness of Lupines, breaking out upon the Body, and shining like Christal, out of which a watrish humor flows. The Germans cal them Schafs-blattern.

II. *Tubercula*, little risings not thick together, with little moisture in them, without any feaver and soone cured.

III. *Rubeolæ*, smal red Pimples, which come somtimes alone with heat and Cough; sometimes they are sprinkeled among the smal poxe or measels, and sometimes they happen to persons in Health.

IV. *Rossalia*, *red fiery spots*, which breake out at the begining of the disease, al over the Body, as it were certain smal Erysipela's, though the tumor is hardly discernable; sometimes they breake not forth til the fourth or fift day; in the progress of the disease they occupy the whole body, so that it looks as it were al on a red fire. Which color is againe changed into spots as at the begining; which vanish at last upon the seventh or eight day. The Epidermis or scarf-skin, faling off like scales. The *Cure* of these requires nothing singular.

Article. III. *Of the spotted Feaver.*

Febris petechialis, or the spotted feaver, is a malignant Feaver, in which certain spots like flea bitings of sundry colors, but cheifly red, appear upon the skin.

These spots are called *punticulæ*, *petechiæ*, *peticulæ*. Whence the feavers are termed also punctículares, periculares, and *lenticulares*.

The SIGNES are the same as in malignant feavers. The spots are without any itching, excuberance and exulceration. They appeare in the back, Armes, Thighes, Breast; viz. places through which the most notable Arteries and veins doe passe. Seldom in the face becaus the cold air repels the matter from thence. There appears no prick in the middle of them, and so they are distinguished from flea-bitings.

The CAUSE is, the thinner part of the putrid humor, which makes that they soone vanish. 'Tis *driven forth* by the expulsive faculty, Seldom critically, seeing they commonly shew themselves at the beginning without any remarkable evacuation: alwaies for the most part *Symptomatically*, and by how much they are more plentiful, they do the more signifie the abundance of corrupt matter in the Body.

The CURE *is* Hazardous, if the spots are many, becaus they shew that there is much matter. If they be few, and accompained with signs of Natures weakness. If they disappear; becaus 'tis a sign they strike in again. If they come forth slowly; becaus it argues grossness of matter, or compactness of the Skin. 'Tis *Performed*. 1. By *withdrawing the matter*, effected by blood-letting, which must be practised before the fourth day, Lenitives being premised to loosen the Belly, to which a little Camphire may be added: if blood be drawn later, the Patient wil be over weakened. 2. By *Expelling* the same, with Sudorificks resist malignity, premising (if you please) such noyntings as may open the pores. In this case, *Bezar* stone is good, and Emulsions of *Nasew and Citron* seeds, with Carduus Water and Syrup of Citrons. The *Bones*, *Blood*, *horns* and *Skin* of the *Rhinocerote* &c. 3. By *Roborating the Faculties*, with Emulsions of *Corals* and *Pearles*. *Confectio Alkermes*, &c. 4. Somtimes also by *Revelling* the Humor to the external Parts by Vesicatories, if the external parts are cold, there be Head-ach, ravings, Convulsions, &c. If the Patient be loose bellyed,

lyed, we must not stop the loosness, unless it be too excessive.

The *Differences* are taken from the Quantity and color. 1. Some are *plentiful*, others *few*. 2. Some *smal*, others great. 3. Some are *red* from putrefaction of temperate blood; others *Yellow* or *Green*, from choler; others of a *Pomegranate* and *Black-choler*, from Melancholy, &c.

Article, IV. Of the Hungarian Disease.

Morbus Hungaricus is a continual feaver, malignant and contagious, Joyned with abundance of evil humors about the stomach and first Passages, and with an extream head-ach.

It may be called the *Campe* or *Soldiers-sickness*, because, it had its original in the Soldiers Camps. Its *Signs* are, the same with those of malignant Feavers. Also great pains in the Head, as also hardness about the stomach and are renitency to the touch, under the *Mucronata Cartilago*; ravings, which cease when the matter turnes to the Ears, and causes Deafness: many times spots appear, as in the spotted-Feaver, &c.

The CAUSE is either the Putrefacton and corrouption of Humors in *Vena Cava*; or Contagion.

The CURE is *hopeful*, if the matter tend to the Ears. If it be Evacuated by stoole. 'Tis *Performed* according to the Nature of the Causes, which see in the Differences: and has great respect, both to the Feaver and the malignity.

'Tis divided with respect to the Causes.

One sort comes from *Corruption* of *humors* in the *Vena Cava*, which are cumulated by Errors in Diet. For the Hungarian Air, is thick a Nights, thin and hot a daies. The Soldiers receive in, the Vapors which exhale from the ground. Their Diet is commonly bad, and tending of it self to putrefaction, &c. 'Tis *known* by the Diet foregoing, and pain of the stomach. 'Tis *Cured*. 1. By drawing forth the Humors, both by stoole, where *Agarick* is commended; and by vomit: also by opening a Vein in the Arme or Ankle, which must be done the first or second day: if some daies are slipped, and either the belly be loose, or vomiting happen, omit it. 2. By *Dispelling* the malignity by moderate Sudorificks frequently given, where both *Antimony Diaphoretick*, and *Treacle* are useful, given in cooling Waters. 3. By *Diet* suitable to malignant Feavers. Those that drink Wine, are sure to die for it.

Another comes by *Contagion* or *Infection*, in which case Purgers and Vomiters must be omitted, and only the malignity resisted.

Article, V. *Of the Sweating-sickness, the malignant Feaver with Cramping, and that with the Cough and Catarrh.*

The Sudor Anglicus *or sweating-Feaver, began in* England *in the daies of* Henery *the seventh, vexing the Patients with extream Head-ach, Unquietness, Panting of the heart, perpetual and plentyful sweats.* The *Cause* is said to be the moist and Venemous Constitution of the Air, enemy to the spirits, Heart, and more subtile part of Humors; some peculiar Influx of the stars concurring to the said Corruption. Twas *Cured* meerly with Sudorificks, *viz.* Sorrel Water, Scabious water, *Terra Sigillata*, &c. The sweat was continued twenty four hours together. The Patient was not permitted to sleep til the sweat was over: nor to be uncovered, but was in the mean while refreshed, with the Juyce of Citrons, Pomegranats, &c.

The Malignant Feaver with a Cramp, *which arose in Germany in the year* 1596. *Does vex the Patient with sundry Symptomes, and the Cramp among the rest.* Many were suddenly taken, some with falling-sickness, others with the Apoplexy, in some ravings did endure for some daies, by reason of the Contagion, which in the space of two years after, did Glew it self, spread abroad, &c. 'Tis *Caused* as was thought, by pestilent Ichors or blood-waters, and malignant Vapors infesting the Nerves. Which were judged to arise from bad diet occasiond by a general Dearth. In the *Cure*, the bad and Venemous matter was removed, and the Nerves being debiliated were made strong again. See touching this Disease a discourse of the *Physitians* of the *University* of *Marpurge*; and *Sennertus*, Book 4. Chap. 26. *De Febribus.*

A Malignant Feaver with a Catarrh and Epidemick Cough, arose in the year, 1580. And about the rising of the Dog star or beginning of the Dog daies, it ranged almost al Europe over. It took the Patients with a feaverish heat, Head-ach, and dry Cough, pain of the breast and *Septum Transversum*, roughness of the Jaws, shortness of breath, &c. 'Tis thought to *arise* from the moist constitution of the forgoing years, and continual

blowing of the South wind. The Feavers *Cause* might be the Rheumatick matter, diffused through the Veins, unless hapily, the Feaver being the primary Disease, Nature endeavoured to eject part of the Humor she was troubled with, that way. In the *Cure* respect was had to the Humor which *Fomented the malignity*, which was expelled, and the *malignity it self* which was encountred with *Alexipharmaca*, and the Reliques of the Humor were altered. To the *Member affected* which was assisted by appropriate Medicaments.

Title, VI. *Of Pestilential Feavers.*

A Pestilential Feaver, is a continual putrid Feaver, which arises cheifly from the Air and Contagion, kils most it seazes, receives Putrefaction and heat from the destructive and Venemous Nature of the poysonous Seminary, and afflicts the Patient with Bubo's and Carbuncles and greater Symptomes than are usual in malignant Feavers.

Its SIGNS are, Symptomes Fewer and milder than are usual in the Plague: of which we shal treat in the next Chapter, see more in the Differences.

The CAUSES are the same with those of the Plague, and differ only in respect of the Contagion, Vehemence and Magnitude.

The CURE is *hard* or *easie* according to the multitude, Paucity, Benignity or Vehemence of the Symptomes. Regard is therein to be had, both of the *Pestilential Venom* and of the *Putrefaction* and *Feaver*, which are to be compared one to another. Tis *Performed*. I. By *Sudorificks* not very hot, especially if the malignity and Putrefaction are more urgent. *Distilled* waters are most efficacious; and Volatil salt of *Harts-horn*. II. By *Blood-letting*, before the malignity be shed abroad into the whole Mass of Blood, other things being considered which are contained in the general Precepts. III. By *Purgation* of *the first Passages*, especially by Clysters, especially if bad Humors abounding be the Cause; but Antidotes must be given afterwards. IV. By *Application* of *Vesicatories*, to the Thighs, Armes, the bending of the Arm, as the place shal advise, to which the matter we would reveal or derive, does take its Cause, or about which tis cheifly resident.

This Feaver admits a threefold Division.

I. One sort comes with the *Pestilence*, another is *without the Pestilence*.

II. One sort in which *Both Putrefaction and malignant* are at the Height. Then the Patients are extream weakened and by reason of the Putrefaction divers Symptomes, as watching, Head-ach, Unquenchable thirst, &c. Shew themselves. Another in which *Putrefaction is high and the malignity remiss*. Then the Patients are not so much weakened, the Heat in the outward parts is answerable to the Putrefaction til the state; about which time, if the Patient must die, the outer parts begin to be luke warm, & soon after grow cold. Another, in which the *Putrefaction is remiss* and the *Malignity Vehement*. Then the Feaver is gentle and the Heart exceedingly hurt. It kils the Patient, while the Patient and Physitian are secure of any danger.

III. One sort is beleeved to be an *Ephemera*, another *Humoral*, another *Hectick*. But because the spirits are not only heated, but also corrupted; because the heart is not only affected in its temper, but vitiated in its substance; no Pestilential Feavers, can be either *Ephemera's* or Hectick. Howbeit, because some difference appeares among them, and now the heart it self, at another time the spirits, and another while the Humors are most affected; by reason of the similitude it has with others properly so called, it may receive such a Denomination.

A Single Chapter, *Of the Pestilence.*

The Pestilence is a Contagious Disease of the Heart, bred of a Venemous and Contagious matter, Suddainly and mortally afflicting al the Actions of the Heart, with an Heap of al kind of Symptomes.

It is a Disease, and that. 1. *Epidemick*, because of the common Cause and of the infection. 2. *Joyned with Putrefaction*, so as not to be judged of cheifly thereby, for so a *Phthisis* shal be more pestilent; in putrid Feavers there should not be more heat than in the Venemous sort; Antidotes were needless; nor does it alwaies cause a feaver, as appears by many instances. 3. *Venemous*, because it oppresses al the vital faculties, and suddenly kils. The

The SIGNES are, either of it *when coming*, as 'its being in neighboring places; the proceding of ſuch things as may infect the air, ſuch as filthy vapors iſſuing from the earth, corruption of fruits. Effectes of the aire enclining to corruption as are, great abundance of toad-ſtools, withering of plants, multitude of Inſects, frighting of the Cattle, muſtineſs and clamines of bread expoſed to the nights Air, ſoon ſtinking of fleſh, plenty of ſmal poxe and meaſels, &c. Or *preſent*, a ſuſpition whereof is, when very many that are taken ſick die. if it creep from one ſick perſon to another. If the patients be ſudddenly extreamly weakned. If Bubo's and carbuncles appear in a place, the aire being infected. If the ſpots called plage tokens, be ſeen upon the dead bodies.

The CAUSE of the peſtilence, is a *venemous & contagious* matter. This proceeds. I. From the Aire, which is *ſometimes* prepared to receive the peſtelence, by mutation of the firſt Qualities; *ſomtimes* 'tis corrupted, without any mutation; *either by* permiſſion of ſundry exhalations, breaking forth of the earth and waters, eſpecially when Saturn paſſes through the ſignes of Aries, Capricorn and ſagitrius, being after an accute manner and totally adverſe to the Heart; *or by* ſome hidden aſpect or Influxe of the ſtars. II. From *Bad Diet*, where the ſaltineſs of the Humors, the ſooner ſhewes it ſelfe, if ſom occaſion happen from the Aire. III. From the *witchcrafts* of Necromancers living and infecting; and of dead witches which are laide in their graves, before their Heads are ſeperatted from their ſhoulders. IV. From *imagination and Terror*, which agitate the humors in the body, ſtir up the peſtilential ſeminary, and plant it deep in the heart. Touching the *Contagion*, we have ſpoke in the firſt Book,

The *Phyſitions Care* reſpects three things; *Preſervation, cure, and Removal of Symptoms.*

As for the point of preſervation. I. The *Cauſes* which infer the peſtilence muſt be removed. II. The *Bodies* muſt be made leſs apt to receive the peſtilence. Let therefore the body be purged thrice a week with pil tuffi a ſcruple. Let not the body be weakened by *Blood-letting*. Let *Meat* be uſed of excellent Juyce ſawſed with antidotes. An *Yſſue* may ſometimes be made, to give the Humors ſcope. The *Air* muſt be kept pure with fier and perfumes. Let the noſtrils be noſtrils be ſmeared with vinegar oyl of ſcorpions, &c. Let *Amulets* be hanged about the neck of quick ſilver incloſed in a nut-ſhel; Arſnick, &c. Nor let any thing be mingled with the Arſnick to abate 'its Vertue. Nor let theſe amulets be heated by motion, leaſt they penetrate through the pores *into* the Body. Amongſt Antidotes *Treackle* is comended, Electuary *de Ovo*, Elixir *proprietatis*, *Bezoar* ſtone, Salt of vine branches and of *Millefoile*. *Extractum Junipernium*, &c. Let *Hot* medicaments be tempered, and firſt macerated in vinegar.

The CURE is abſolved, I. By *Blood-letting*, which muſt be perforemed after the taking of an antidot if there be ſo much plenty of blood, that a putrid feaver is feared in any ſide, if there be no piane; if there be, on the Arme of that ſide where the pain is unleſs a Carbuncle ſhal cauſe great paine and inflamation, in the ſpace of twenty foure Houers. II. By *purgation*, after an antidote has bin given, if il humors give ſuſpition of a feaver to follow; if the peſtilence have riſen from an inward corruption of Humors. III By giving *Sudoriſicks* and *Alexipharmaca* among ſimples the *Hercinian Unicorne* is commended. The *blood* of a Rhinocerote, five drops given in ſorrel water. A bit of his hide boyled in water of ſorrel in which red hot gold muſt be quenched: The juyce of the Pap of the Braſilian fruit called *Muracujao* Haſu. The *Berry* of Molucca poudered to the quantity of five graines, in roſe or ſorel water. The juyce of *Galega* or Ruta Capraria, the quantity of three ounces, &c. Of compounds, the ſyrup *Meliſſa Fernelii*; *Septalius* his ſyrup or *ſucco Galegæ*, Quidiny of elder berries with Treakel Vinegar, Crollius his Elixir *peſtilential*, Diaſcordium, three drams, eſpecially in women with child and in children, Pouder of *ſmaragd ſtone prepared*, Bezar ſtone of each eight grains. *Hiacinth* præpared three grains ſee Sennertus of Feavers towards the End. In the *Uſe* of theſe things *obſerve*. Hot antidotes like treacle muſt be tempered with ſuch as are of a colder nature. That treacle and Methridate, and other ſtronger medicaments muſt not be given to women with child, nor to children. Such as have weakneſs in their ſtomach and Head, muſt abſtaine from Camphorat Medicaments. Some Medicament is to be given or other thrice every four and twenty houers. At firſt the *medicaments* muſt be *very often changed*, leaſt nature growing accuſtomed, come not to be moved thereby. Waters, Spirits, and ſuch other things as wil moſt eaſily penetrate muſt be given principally. The patient muſt abſtaine from ſleep til he or ſhee have under gone two

ſweats

sweats. While the sweating lasts, refresh the Patient with the Juyce of Citrons, Carduus water &c. The sweat being finished, cold Air must be avoided, and the sick refreshed with meat.

Symptomes of the *Pestilence* are, the *Bubo*, the *Carbuncle*; the Burning Feaver. The *Bubo* imports less danger, if it be great and eminent, if it breaks out at first, and in the groins. It is more *deadly*, if it be lead colored and black. If it lie lurking under the Skin. If it breaks forth beneath the Neck or under the armpits, on the third or fourth day. *Most dangerous*, if it vanish and leave the Patient weak. When it *Strikes* in it must be called forth, either by fixing a Cupping-Glass, or with a pultis of Radish Root and *Scrophulary* the great, with a little of Salt, Vinegar. When *it comes far out*, it must be drawn to the more ignoble parts; from the Neck to the hollow of the hand, from the Groins to the soles of the Feet. To this purpose there is an useful Cataplasme made of two ounces of the greater Scrophulary Root, Radishes one ounce, beaten, and with one ounce and half of the strongest Leaven, and boyled in Wine Vinegar, and so made into a pultis, and applied to the Palm or hollow of the Hand or the Sole of the Foot, on that side on which the bubo is. It must be renewed three or four times in a night. Being *Fixed*. 1. It must be often drawn with a Cupping-Glass and store of flame, without Scarrification. 2. The Cupping-Glass being removed, let it be covered with a ripening *Cataplasme*, and drawing, made of the Roots of *Scrophularia*, *Salt*, *Black Sope*, and strong *Leaven* boyled in Vinegar. 3. After six hours let a Cupping-Glass be again set on, and let the Skin be cut with a Lancet or smal Knife. 4. Let a *Cataplasme* ripening and drawing made either of a *great Onion* hollowed, filled with Treacle and roasted in the Embers til it be soft; or of the *middle rind of Elder* boyled in Cream, and mixed with Leaven; be laid on at Night, and often renewed. 5. Let the Tumor, the following day, be either cut or brok, and the Blood water squeezed forth; and let a mundifying or clensing plaster of *Turpentine* wash't in *Scordium* water, and honey of Roses mixed therewith, be applied.

Touching the *Carbuncle* and *Feaver*, which is also entertained by certain symptomes, see in their proper places. See concerning the Plague *Peter Salius Diversus*, *Foel* Tom. 5. Sect. 3. *Septalius* in a peculiar Treatise and *Valerius Martini*. And so much concerning Feavers.

THE

THE EIGHTH BOOK OF THE IDEA OF PRACTICAL PHYSICK.

Of the Diseases of the Head.

Title, I. *Of the Diseases of the Brain.*

Chap. 1. *Of the Distemper of the Brain without Matter.*

HItherto we have treated of Diseases in the general; the *Particular* now follow; and these are either such as are *not Venemous*, or such as are *Venemous*. Unto those belong the Diseases of the *Head*, the *middle*, and the *lowermost belly*, commonly called the three Regions. The Diseases of the Head are either those of the *Brain*, or of the *Eyes*, or *Ears*, or of the *Nostrils*, or of the *Tongue*, or of the *Lips*, or of the *Face*, or of the *Mouth*, or of the *Teeth*, or of the *Gums*, or of the *Cheeks*, or of the *Wesand* or Windpipe, or lastly of the *Jaws* and *Tonsils*. Unto *the Diseases of the Brain* are referred (as thereunto belonging, a distemper, (which the *Latins* cal *Intemperies*) *the straightness* (or stoppage) *of its passages*, *Commotion*, *Inflamation*, *Hydrocephalius*, (being a cold Disease thereof proceeding from water and Flegm, *Contusion*, *wounds* and *Fractures*. The distemper (or *Intemperies*) either is *without matter*, or else with *matter*.

The Distemper of the Brain without matter, is the declining thereof from its due and right temper, through some external causes.

For the *Signs* and Causes, see of them in the differences.

The CURE is performed by *Alteration* and *Purgation*, lest that the Body, if it be either Plethorical, or Cacochymical, should attract more Vapors.

It is *divided* into four species, or *kinds*.

I. the first of them is hot, when the Brain declines unto an immoderate or overgreat heat. It is discerned and *known* by the beating of the Temples, the agitation within the Cranium or Skul, by the sleep which is either none at al, or else very short, and by the instability and

and mutabillity of the Imagination. It *ariseth* from external hot causes, to wit, Aire, meat, drink, & exorbitant affections, &c. It is to be *cured*. 1. By *alteration* and that by cooling mediacments, as wel internal as external; and these not over strong, especialIly in children and women; having in them a mean and indifferent astrictive quallity left that the humors should be either attracted, or dissipated; not too frequently applied and made use of, least that they should introduce and cause a kind of senceleſsnes or stupidity; and then lastly, they are to be mingled with dissolvers, when the distemper is in 'tis declination. The cheif and principal of them, are the leaves of *Lettice*, and *Purslan*; the flowers of *Roses*, *Waterlily*, *white* and *Red Poppy*, and *Saunders wood*; together with those medicaments that are preprepared and made out of those, such as are fomentations; which are to be corrected with such things as penetrate by reason of the thinnes of their substance, as doth Vinegar, &c. These remedies are to be applied to the forehead, Temples, and Sutures. So soon as they begin to wax hot, they are to be changed; neither are they to be tyed on or covered with thick clouts, or linnen often doubled. For Embrochations and washings of the Feet, are most in request, the Leaves of *Sengreen*, *vine Leaves*, and the *Leaves of the Willow Tree*. The flowers aforesaide, as also of the *Elder Tree*, and the *root Rhodia*, a cataplasm made of *willow Leaves* and *Vine buds*. 2. By *Evacuation*, for the cause before alledged. 3. by a *diet* inclineing to coolnes more than ordinary.

II. The second is *Cold*, when the Braine declineth unto an excessive or over great coldnes. And this is *known* by the swelling of the eyes, the palnes, of the face, the heavines of the head, propension to sleep, slothfulnes and slugiggishnes. It *proceedeth* from things external, that either are cold in themselves, or at leastwise induce and cause cold. It is cured, 1. By *Evacuation*, if the body be Cacochymical. 2. by *Alteration*, which is effected by the use of things External and internal that are hot, and these must be taken after meat, and never before. The cheif of them, are, the Roots of *Piony* taken out of the earth at the waning of the Moon, the root of *round Aristolochia*, *Castorium*. The flowers of *stæchas* or *cotten weed*, *primrose*, pealings of the bark of the *linden* or *tyle tree*, of flowers of *lillyes* of the *vally*, of *Rosemary*, *Bettony*, *Marjoram*, *Black cherry* water, the water of swallows, *Treackle water*. The Quintesence of *Rue*, of *Rosemary*, of *Succinum*, or *yellow amber*. Of condites, the *Indian nut*, *nutmeg*; *treacle*, *Mithredate*, the restorative *Confection*, called *Anacardina*, and *Alkermes*. *Distilled Oyls*, as of the *Wood Guajacum*, and of *saſſafras*, taken either in waters, or else in smal morsels. The leaves of *Rue*; *Wild bettony* and the right *Verveyn*. Balsams, of *Lavender*, *Rosemary*, *yellow amber*, Cloves, nutmeg, &c, 3. by a *diet* somewhat inclining to warmth; where likewise suffumigations have their use and place.

III. The third is *Moist*, when the brain inclineth unto an overgreat humidity or moistnes. It is known by the humidity that appeareth in the nostrils, and the eyes, by the Catarrhs that follow upon it, and the propension unto sleep. It *ariseth* from some external causes that are not natural, and such as produce humidity; such as are showers of rain, the moon beams, &c. It is *cured*, 1. by Alteration, which is atchived by such things that being in their own nature moderatly drying are mingled with coolers, and not strong sented or perfumed: but internally by decoctions, and especially that of *China*, & *Guajacum*, into the which a little veal broth (to allay and qualifie its drines) is to be put. Externally, there must be prescribed *Embrocations*, and those little baggs that we commonly cal *sacculi*, made of *millet* or *Hirse*, *salt throughly dried by the fire*, the roman *nigella* or *nightshade* (commonly called *Gith* or *pepper wort*). &c. 2. by a diet conformable unto that that is prescribed to such as use the decoction of *Guajacum*.

IV. The fourth and last *species* is *dry*, to wit, when the Brain recedes unto an excessive and immoderate dryness. It is *known* by the hollowness of the eyes, want of sleep, deformity of the face; the sharpnes of the senses, and the Causes afore going. It arises from External causes; but more especially from the over great evacuations of the body, excessive and frequent waterings, fasting or an over spare diet, melancholly or sadnes of the mind, and overmuch Study. It *is cured*. 1. by Internal *moisteners*, as for instance, the emulsion of the greater cold seeds, and *Violet flowers* or externals, such as is the top or froth of whey. 2. By a *diet* more than ordinarily moist; such as is the fat broths made of yong flesh, eggs rere boiled and sup't up, and a bath of sweet water, &c. And here *Salt* must be very sparingly eaten, or rather altogehher carefully avoyded.

V. A

V. A Fifth and last *Species* or kind of the Brains distemper is *Compound*; the Nature and reason whereof may be known from the connexion of the simple or single distempers; so that it is no way requisite or necessary, that we here speak any thing more concerning it.

Chap. 2. *Of the Distemper of the Brain with Matter.*

THe *distemper* of the brain with matter is, the declination thereof from its *due temper*, caused and brought upon it both by external and internal causes, towit, the humors, and flatulencies or windinesses.

The SIGNS are, the Progress of the internal causes, and the alteration and change of the disease at the first apearances of the Moon.

The CAUSES are internal, towit, humors, and Winds or windines, which proceed either from the weakness of the brain, or else from the repletion of the inferior parts.

The CURE is performed, I. By an *Evacuation*, and that as wel *General*, where a regard must be had unto the *Pills* that are to be taken, towit, that in respect of their ingredients ought to be made most efficacious, and then given in the morning; unto the whole Body, which ought to be purged; unto the absence, and presence of a Feaver, lest that there be an Evacuation of such things as are not concocted; unto the Clysters that are to draw back the peccant matter, and these are by no means to be omitted: as *Special*, where in the first place are to recounted those Medicaments that are usually thrust or put up into the Nostrils, (we cal them *Errhina*) and these ought to be such as are most of al drying, provided notwithstanding that there be nothing amiss in the Eyes and Nostrils. Secondly, Those things that provoke unto sneezing, (we term them *sternutatoryes*) especially if the Head be filled with Vapors, and within cherish a gross and thick snotty matter. Thirdly, *Apopblegmatisms*, if the Lungs be free from an Ulcer, and the Humors not over thin. Fourthly, Those Remedies which we cal *Cauteries*, *Setacea*, *Topicks*, &c. II. by Correction of the *Distemper*.

It is *divided* in a Threefold manner.

I. The first is according to its *Essence*, when the matter is generated in the Brain. It is *known* by this, that those Symptomes that follow upon the Affect do presently appear; that they continually afflict, unless haply the matter be generated in the Head by certain intervalls and degrees; and that the Causes affecting the Head went before. It *ariseth* as wel from a fault in the Brain through an ill concoction, as from the retention of the excrements thereof, by reason of the hurting of the expulsive Faculty, or its passages. The *Cure* differs not from that which hath been before spoken of, and of which we shal speak further in the following discourse.

Another division of the Brains distemper is, *by Consent*, (or sympathy, when the matter is transmitted and derived unto the Head from some other place. It is *known*, by the general signs, of which we have spoken in the first Book, and first Title thereof. It proceeds likewise from the same causes, of which we have there at large treated. In the *Cure*, 1. We ought to *begin* with the part transmitting, but if there be any *Crisis*, there is nothing to be applied, unless there be a vehement motion of the matter. 2. There must be a *Revulsion*, or drawing back, by opening of a Vein in the Arms or Thighs, by Cupping-Glasses, by Clysters, by frictions or rubbings, and by cauteryes. 3. There ought to be used repulsion, or Driving back, by Medicaments made of Vinegar and Roses (we cal these *Oxyrrhodina*) unless there be a discovery made either of a Feaver, or a Catarrh, or overmuch watchfulness and want of sleep, by reason of some wound either in the *Cranium* or skul, or else in the Membranes of the Brain. 4. There ought *an interception to be made*: The Differences whereof are various, according to the Variety of those parts from which the matter is sent. 1. From the *whol body*, as in Feavers; and then we must rather study to make use of revulsion and Evacuation, than Repulsion or driving back. 2. From the *Stomach*, *Spleen*, *Liver*, *Rains*, *Womb*, *Diaphragme* (or Midriff) and the *External parts*. And then it is known by the effects of the transmitting parts, and accordingly the Cure is to be taken from them.

II. Another is from a *wind* or vapor, which is *known* by the sense and feeling of an Extension or stretching out, or by an heavines in the part affected, a kind of singing noise in the Ears, the extraordinary beating of the Arteries, and the Vertigo, or lightness and giddiness of the Head. It *ariseth* from the same causes, of the which we have already spoken in treating of the causes in general; unto the which in special, there may be added, as thereunto appertayning, scents or smels, to wit,

things of an ill Savor, Vapors arising from Metals, the smoke of coals, &c. It is *Cured* diversly according to Nature and diversity of its *species*, or several kinds. It is divided in a two fold manner. 1. The former division is taken from the *external Causes*, as Metalline Vapors, &c. And this is expelled by *Zedoary*, by the smoak of coals, in which case (as the remedies thereof) there is required an Air free from al il Savors, Treacle Water, and Sternutatories, or such things as cause Sneezing; by the wind, either when cold, or hotter then is usual; for the remedying whereof, such things as are thereunto opposit, are necessarily required, and very serviceable. Another proceeds from things internal, whether overhot, or overcold. 2. There is another *Species* of it by its *Essence*, and then a pain and heavines of the Head undoubtedly preceded, without any affects of the inferior parts. This is to be cured by internal discussives, and the scent of things that are appropriate unto the Head. There is another kind thereof that is by *Consent*, or agreement with some other parts; and then the Neck-veins are distended, the Urins (in the top or superficies of them) filled ful of little windy bubbles; winds arise, either by the fore part, with the extension (or stretching out) of the Breast, and the beating of the Arteries at the very bottom thereof; or else by the hinder or back part, together with a distension of the Veins and Arteries of the same aforesaid part. They *arise* from other parts that lie underneath. In the *Cure*, regard is to be had, first of al unto revulsion, or drawing back the offending matter by Clysters somwhat stronger than ordinary; and next unto repulsion, or driving back the said peccant matter, externally by Application of things made up of Vinegar and Roses (as above said) and internally by the Conserve of Roses, &c. And then lastly, special regard ought to be had unto Evacuation by purgers corrected with Carminatives.

III. Another Division is from the *Humors*; and this is either proceeding from the *Blood*, or else it is *Cholerick*, or *Flegmatick*, or *serous* and wheyie; or otherwise it is *Melancholy*, and *Adust*, as consisting of burnt Choler.

I. The Sanguin *Distemper of the Brain proceedeth from the blood either over thin, or too thick.* It is *known* (unless it proceed from some external Cause) by the extension and heavines of the Head (Especially when the South West wind blows) the redness of the Eyes, the gentle and moderate heat, and by the pain of the forepart thereof from the Ninth hour of the Night unto the third hour of the morning or day following. It *ariseth* from a Plethory and its Causes. It is derived into Act, and made to appear by the extream and over vehement affections and passions of the Mind, much drinking of wine, and by such other things that cause heat or pain in the Head. The *Cure* must forthwith be set upon, and attempted, lest that an inflamation or some other affect should flow therefrom. And this is *accomplished*, I. By the Diversion of that blood that is flown into it, by opening the *Cephalick* or Head Vein, or else the *Saphena* and Foot Vein, if there be a suppression of the Monthly Courses, or of the *Hemorrhoides*; (for by no means we are in this case to attempt the opening of an Artery, for fear that the Tumor *Aneurisma* should follow) which aforesaid blood-letting doth both Evacuate or empty forth, and draw back the peccant humor: as also by the Application of Cupping-Glasses unto the Loyns, shoulder blades, and Neck; and likewise by a gentle Evacuation: as also by repulsion or driving back, which is effected by the Use of repellers that (in the winter) are potentially cold, but in the Summer time actually such; if the sick person be young, unless there be present a Catarrh; and this repulsion ought to be instituted by frictions or rubbings. II. *By a sensible drawing forth of the blood that hath flown in* by the passage of the Nostrils, rubbed hard and chafed with *Milfoil* or *Yarrow*, by opening of the Vein that runneth strait along into the forehead, if it be the hinder part that is affected; by *Discussion*, and by a Convenient Diet.

II. The Cholerick *distemper of the Brain proceeds from the Superabounding of choler.* It is *known* by that sharp and pricking pain, especially on the right side; by the extraordinary burning heat; by the depravation of the actions of the Brain; by the many, and those very yellow excrements of the Ears; and lastly, by the bitternes of the Mouth. It *ariseth* from Causes generating Choler. It is *divided* into that which is such by its *Essence*; in which the Cure is to be administred, I. By opening the Vein of the right Arm, after a gentle Clyster, and without the ordayning of any preparative before it, if there be not any Feaver present. II. By *Preparation*, (if it be needful) by cooling and moistening Cephalick Medicaments; which ought to be more or less strong, according to the power and strength of the choler. III. By *Purgation* with Aloticks (that

(that is such Medicaments as have Aloes for their basis) and other Remedies that are specially appropriated unto the Brain. IV. By wasting and *consuming* the remainders or reliques, where Camphire (by reason of the over much want of sleep) ought carefully to be avoyded. V. By *Digestion*, in the use of digestive Medicaments. VI. By a *Diet* that is wholly opposite unto the distemper. And Secondly it is divided into that which is *by Consent*; in which we are to proceed, according to that way and Method formerly mentioned, and laid down.

III. The *Pituitous*, or Flegmatick distemper of the Brain is *known* by the signs alleadged and mentioned in the cold distemper of the Brain. The sleep in this case is very profound and deep, or at leastwise overmuch, unless haply the Flegm being loosened and dissolved, a Catarry and Cough be thereupon excited. The pain is most of al in the hinder part of the head, afflicting the Patient from the third hour of the night unto the ninth. There is likwise an extraordinary paleness in the face, unless perchance it happen to be colored, or (as it were) painted al over with a certain kind of redness, through the dayly & continual residence of a part of the blood brought and derived thither. It *ariseth* from Causes generating flegm, more especially from a cold Brain, a hot and moist Liver, which transmits thither a sort of blood that is ful of Vapors. The *Cure* hereof is something difficult, especially in the winter time; and this very Disease doth easily degenerate and turn into the Apoplexy and Palsie. The *cure* is performed, I. By *Alteration*, after the clearing and Evacuation of the first waies and passages; and this must be done by Cephalick Medicaments hot and dry, at first benign and gentle, and afterward by degrees stronger; and these ought frequently to be reiterated; and here we may prosperously Act by the Decoction of *Chyna* Root, *Guajacum*, and *Sassafras*. II. By *Purgation* now and then interposed during the time of Alteration; and here the Pills *Assajereth*, *Aureæ*, and *Cochiæ*, or the *Extract* of these, have their place and use. III. By a particular *Evacuation*, by medicines put up into the Nostrils, by Masticatories, Gargarisms, washings of the Mouth, &c. IV. By the *Application* of *Topical* Remedies, among which Fomentations, Embrochations, Sacculy or little baggs, (by al which, the matter is insensibly evacuated) have their place and use. V. By *Application* of a Cautery unto the coronal Suture, or else by making an Issue in the Neck, if the Distemper be altogether refractory, and wil not give place, nor yield unto the aforesaid Remedies. VI. By *Corroboration*, which is effected by appropriat Cephalicks. VII. By a *Diet* that is opposite and contrary unto the Cause and the distemper. It is *divided* into that which is from thick Flegm; (where preparatives have their place, as being of singular use; neither may blood-letting in this case be safely allowed of) and that which ariseth from Flegm that is thin and fluid, and which excites and begetts a Catarry; and in removing of which, sneezing wort, and al sorts of Sternutatories, and *Errhina* (liquid Medicaments to be put up into the Nostrils) that are over strong and violent, ought carefully to be avoyded.

IV. The *Serous* or Wheyish distemper of the brain is *known* by those signs and tokens that are before mentioned. It is derived unto the Head, either sensibly and by degrees, especially together with the Arterial blood it self, and likewise the spirits; or else al at once, by reason of some external more forcible Causes, to wit, overmuch drinking of wine, anger, violent exercises &c. It is *Cured*. I. By *the Evacuation of the serous Humor from the Brain*, without the premising or use of any preparatives whatsoever. This Evacuation is performed. 1. By a purgation of the Humor with such Remedies as draw forth water. 2. By blood-letting, especially if there be present any Feaver (although never so gentle, and an extraordinary heat which moveth the serous part of the blood unto the Head; and in case the accostomed Evacuation be suppressed. 3. By the Exhibition of Sudorificks that are over hot, as for instance, *Antimonium Diaphoriticum*, *Bezoartick*, the *Lunar Fumary*, &c. 4. By the *drinking of Diureticks* which are likewise very good and profitable to the spleen. II. by *Correcting the Distemper*; for which purpose we usually prescribe the powder of a mans bones, drying Lotions, &c. III. by *Diet*, touching which see and consult the practical Physitians.

V. The *Melancholy* distemper of the brain is *known* by the dotage that accompanyeth it, together with fearfulness and sadness, a pain especially on the left side, turbulent dreams and oftentimes a sudden loss of al motion. Is *Proceedeth* from Causes that generate Melancholy. The Cure hereof is easie in its beginning. It is *Accomplished*, I. by the reiterated *Preparation* of the *Melancholy* Humor, (after the Purgation of the first waies and

passages) by the use of those medicaments that both heat and moisten, among which the syrup of *apples* is excellently good. II. By the evacuation of the said humor by purging potions, at first, such as are genttle, but afterward such as are stronger in opperation (and here for this purpose *Lapis Lazuli* is much commended) adding thereunto such things as moisten; after which there must immedeiatly follow an evacuation by the frequent use of those remedies that we term *Errhina*, and other such like. III. by corroborating and strengthening the *Brain* by the *confection Alkermes*, with other suchlike confections. IV By *diet*, in the which vinegar (in regard that it doth ferment, and as it were leaven and sowr the mellancholly humor) is principally to be avoided. It is *divided* into that that is *Essencially* such; (in which likwise the opening of the cephalick or head vein of the left arme, and a copious letting out of the blood, if it be black, but a more sparing evacuation thereof if pure, hath its place and use, and into that which ariseth from the suppression ether of the *Monthly Courses*, or of the *hemorrhoides*, in which case revulsion, and the opening of the Ankel vein is to be put in practise.

VI. The *Atrabiliary* distemper of the brain is *Known* by the want of sleep, and extream dobting of the sick party, and it *arisath* from such causes as foment and supply a melancholly Juyce, and together with these (as it were burning of the same aforelaid Juyce) the extraordinary heat of the bowels may do very much. The *Cure* is very difficult, in regard that it to far receeds from the Temperament of the Brain. It is *atchived*, I. By an *often repeated preparation*, by coolers and moisteners, an evacuation of the first Vessels or passages being before premized. That compound which we commonly cal *Cachund* (of which hath already bin spoken in the melancholly destemper) hath here likwise its place and use. II. By a frequent and *reiterated evaccuation* of the black choler by medicaments, such as they term *Melanagoguer*, well mingled together with Moisteners; as also by those things that peculiarly and properly purge the brain. III. *By digestion*, and that by *Topicks*, and sweet water baths, if yet the distemper wil not give place, nor be removed, then let the patient drink the whey of milk together with such things as are specifical remedies against melancholly, and of a moystening quality. It is *divided*, I. into that which is such in its very *sence*; (where the opening of the cephalick, or the common Basilick vein hath its place) and that which is cauted by the suppression of the *courses*, or the *Hemorrhoides*; of the which sufficiently above. II, into that which is from the *blood* burnt or over heated; in which distemper the sick party is evermore very apt and propense unto laughter. And this is to be *cured* by letting blood; in the same manner as was that that was generated by *yellow choler*, (in which a bruttish kind of dotage, and fierce anger gets the upper hand) and that likewise that had its original from the *Melancholly humor*, in the which pensiveness or sadness, and a continued silence, or else haply (after a while, that this silence is broken) a tedious extream talkativeness hath the predominance, &c.

Chap. 3. *Of the straitness or narrowness of the passages of the Brain.*

THe Straightness of the passages of the Brain then happeneth when the said passages are either obstructed; or compressed by their causes.

Those passages are the *pores of the Brain*, which is of a spungy substance; the pores or passages of the stomach, the Veins, Arteries, Nerves, and the sutures of the Skul.

The SIGNS are taken from the diminution, or else the utter abolition of the actions of the Brain. The *Causes* are, either *obstruction* from pituitous and flegmy humors, blood poured forth out of the vessels, grosse and thick Vapours; or otherwise, *Compression*, and this either from the skul, by reason of some violence offered thereunto, or else from blood distending the vessels, (from whence they are affected with a flegmatick distemper) or else haply such as is shed forth and fallen into the substance of the body, by reason of the abundance of its thinness, or acrimony; a pituitous or flegmy humor having first obstructed the Basis of the Brain; and lastly, by an hard tumor or swelling.

The CURE is Various according to the variety of the differences.

The differences are taken from the many and several causes.

I. One difference is from *Causes External*, towit, the fumes that arise either from coals, beer, or new wine, (commonly called musty) which even as it were Suffocate and Choak the sick person: And then in this case the patients

are

are to be exposed into a free and wholsom Air. The vapours are to be discussed with *aqua vitæ* mingled with treacle; and then a vomit or sternutation is to be excited. Or else by the *Compression of the Skul*, from some blow. And then in this case the standers by and the Patient himself are to be advised withal. The brain is to be elevated or lifted up, as we shal shew further when we come to treat of a fracture. Or else it may proceed from the compression or defect of the *Sutures*, which can no way be corrected; or lastly, it may have its rise from the Humors and Vapors by their *Obstruction*, which said Humors, &c. are to be discussed by Fomentations.

II. Another difference ariseth from *Internal* Causes; to wit, I. From *Blood*, either poured forth without their Vessels, and so obstructing the Meander-like winding passages thereof; or otherwise so distending the Vessels, that of necessity the passages must be compressed. And *then* for the most part a *Plethory* is present and joyned therewithal, and the blood oftentimes breaks forth by the Mouth and Nostrils: unless this be done, it hasteneth on an inflamation, &c. by its putrefaction and rottenness. It is to be Evacuated and drawn back by blood-letting and Cupping-Glasses: and then it is to be derived by opening the forehead or the Tongue Vein. II. From *Flegm* that is clammy and *thick*, either compressing the basis of the Brain, or else obstructing the original of the nerves, & so shutting up and imprisoning the Animal spirits. *Then* some Causes generating Flegm, heaviness of the Head, dimness or darkness of the Eyes, the suppression of the wonted Evacuation of Flegm by the Nostrils and Jaws, went before; unless this be timely and speedily Evacuated, it causeth unavoidably the Palsy, &c. The *Cure* is to be begun and proceeded in after the same manner that we shewed before in the Pituitous or Flegmatick distemper. III. From *Vapors*, that proceed, *either* from more than ordinary food taken in, or else such as is excessively vaporous and windy; from which the sick person must now carefully abstain: *or* otherwise from Humors that stick fast in the lower parts, which are to be Evacuated. *Or* else in the beginning of Feavers; where there is special regard to be had unto the quality and Nature of them, and then accordingly the said Humors are to be drawn back, and depressed. IV. From a *Tumor*, which is hardly ever discovered while the sick person is alive, neither is it by any means curable.

Chap. 4. *Of the Commotion of the Brain.*

THe commotion of the Brain, is a removal of the same from its natural place, by reason of some External and violent causes.

The *Subject* of this distemper is the brain, but more especially according unto the superior parts thereof. The *Signs* hereof are, a sudden Consternation of the sick, insomuch that they become, as it were, altogether dumb, speechless, and likewise altogether deprived of motion, only they open their Eyes.

The CAUSE is either some violent blow, or dangerous fal, or the extream and over long noise of Guns and Thunder-Claps; which either only disturb the spirits for the present, or else they cause a fracture of the skul.

The CURE is accomplished, I. both by the *Revulsion* of the *Blood* by opening a Vein, that so it may no longer too abundantly flow thereunto; as also by *Repulsion* or driving of it back again, evermore avoiding such things as are dry & astringent, lest that the pores should be obstructed, and the very breathing intercepted. II. by *Evacuation* of the *blood* (if any of it be shed forth, by opening a Vein, as wel that we cal *Puppis*, that is above the *Lambdoid* suture, as that other which is under the Tongue. III. by *Discussion*, and that at the first joyned together with Repulsion, but afterward used alone, by those Medicaments that heat and moisten.

It is *divided* into that which more *Moderate* and gentle, and that that is more *grievous*.

The *Lighter* and gentler of it is that, in which the Animal vertue is only with violence drawn back into the brain, & there followeth no rupture of the Vessels. And *then* there happeneth only a kind of drowsiness or sleepiness, and this likewise not over profound.

The more *grievous Species* hereof is that, in which also the parts of the brain are removed from their Natural Scituation, the passages are smitten, and the vessels broken. *Then* there chanceth an *Aphony*, or loss of speech. Blood is plentifully poured forth by the mouth and Nostrils. Vomits likewise (by the consent of the Stomach) infest, and exceedingly afflict the Patient. And after this, the matter becoming putrid and rotten, there ariseth a Feaver,

ver, a dotage, a *Sphacelus* of the brain, &c. And the matter being thrust down unto the Nerves, other dangerous Symptomes follow thereupon.

Chap. 5. *Of the Inflamation of the* Brain.

THe Inflamation of the brain is a swelling thereof proceeding from blood poured forth out of the Vessels into the void spaces of that part, and there putrefying.

The SIGNS are, an acute and continual Feaver, which from third day to third day is exasperated; a perpetual doting, which began sensibly, or gradually, and by little and little, a red kind of color and deformity of the Face and Eyes, the Membranes being dryed up by the burning heat, Salt and sharp tears, the Excrementitious moisture flowing downward (as it were) of its owns accord by reason of the weakness of the part, a swift and quick Pulse, &c.

The CAUSE is, blood falling out the Vessels, and there putrefying, the transpiration there of being intercepted. It is *Poured* or emptyed forth, either by reason of its store and over great abundance: or else by reason of its thinness and acrimony; those things likewise helping forward and furthering the same, which either carry the blood to the Head, or else at leastwise violently move and stir the same; and such are, the heat of the Air, pain, striking, a wound, wrath, &c.

There is but very little, or rather *No* hope at al of the *Cure* hereof, if a Convulsion follow upon it; if the Urin be white and extraordinary clear, because then the choler is forcibly drawn up into the Head; if a doting being at the first present, there follow thereupon gnashing and grating together of the Teeth by reason of the Convulsion of the Muscles in the temples, and Jaws; if it tend to a suppuration in regard that the *Pus* or filthy Corrupt matter cannot possibly be evacuated within or betwixt the Skul and the Membrane. There may be some hopes, if on the critical day store of blood flow forth at the Nostrils; if there be much (and that hot) sweat from the Head, and if after the heighth of the disease there be an Evacuation of abundance of yellow choler by the belly. There is but smal hope of a Cure, if many of the Functions be hurt and empaired; if there be a trembling of the Tongue; if a kind of cold stiffness infest and invade the Patient, after he hath voided downwards white Excrements; if there appear to fal from the Nostrils a black drop, and that such is sincere or bright, in regard that it proceeds from a very vehement adustion; and lastly if they scrape together Straws, &c. It is *Performed* (if at al,) I. by *Revulsion* or drawing back of that *Humor* that floweth in, either by opening of the Cephalick Vein, or else; 1. Of al the Median or middle Vein (if there be present great store of the Humor) but yet not unto fainting or swooning away: or otherwise by Cupping-Glasses with a profound and deep Scarification, in the parts both above and beneath; or else by some other kinds of Revulsions. 2. By *Repulsion* or driving back by the frequent use of Repellers, unless the matter tend towards, and as far as the skin of the Head; or else by the applying unto the head, being close shaven, Remedies a little warm, tempered and qualified with Vinegar that is not over strong, if there be not present either an internal, or an External heat, or if there be any such heat, then by Medicaments that are cold. 3. by *Interception*, by the rolling of swath bands about the Neck. 4. by a *gentle Purgation*. II. by *Evacuation* of the *Humor* that is already flown in; and this must be performed by opening the Veins of the Head, those of the Nostrils, those under the Tongue, and the Aplication of Vesicatories, and a Cupping-Glass unto the fore part of the Head. By Discussion through the use of Medicaments made up of discussives, the Alabastrine unguent. III. by a *Diet*, in the which emptiness and over long fasting must be avoyded as pernitions and extream hurtful; &c.

It is *divided* after a Threefold manner.

I. The first *species* in the division is that which *Precedes* a *Feaver*, in which we are allowed to purge while the feaver is absent; & more especially if there be present an extraordinary cacochimy, cupping-glasses are to be imposed & applyed unto the very top of the crown, with scarification following therupon. Another kind thereof *followeth* the *Feaver*, in which likewise, we may purge with those Medicaments that are gentle and moderate, especially if the turgency or heightening of the Matter require it.

II. Another sort thereof ariseth *rather* from *blood* than *Choler*; in which a greater quantity and portion of the blood is to draw forth by opening of a Vein: but then there is likewise another, which proceedeth from *Choler rather*

than

than from blood; in which we ought rather to purge, than use any other means.

III. Another is an Inflamation of the *Membranes* of the *Brian*; unto which the signs before alleadged do very fitly agree. Another there is of the substance of the Brain it self, in which there is at the first a pain seizing the Head, which by the hinder part thereof penetrates even unto the very nook of the Neck. In this distemper the sick persons do not dote, but yet notwithstanding they lose both their external and internal senses; they likewise speak very little, or not at al, &c.

Chap. 6. *Of the Tumor* Hydrocephalus *in the Head.*

HYdrocephalus *is a swelling of the Head, arising from the collection of some serous or wheyish Humor in some one part or other of the Members that constitute the Head.*

There is in this distemper no need at al of SIGNS; for the disease may be sufficiently known by the very sight of the party. It is rather the disease of Infants than of persons of years and strength.

The CAUSE is a Humor that is wateriſh, wheyie, and somtime dreggy, yea moreover also bloody.

The CURE is exceeding *doubtful*; as wel because the distemper is in a Noble part; as likewise because the subject part is very tender: as also in regard that an Apoplexy or a Lethargy do easily soon seize upon the party. But the cure (if there be any) is to be *Performed*, I. By *drawing forth* the *Water* with *Hydragogues*, sweats, Urine, Medicaments that insensibly discuss and dry, and by opening the part affected. II. By *Reducing* of the *Brain* unto its pristine temperament by *hot Cephalick* Remedies.

The *Difference* is taken from the Scituation of the Humor. For *one* kind hereof is from a water sticking between the Skin and the *Pericranium*; and *then* the *Tumor* is soft, transparent by candle light, or the light of the Sun; as also it being void of pain yieldeth unto the touch, and immediatly ariseth up again: being pressed together it exhibites a motion of a fluctuating water. It yeeldeth more easily unto the Medicaments that are prescribed, and may be wholly taken away by the alone opening and cutting thereof. There is another *Species* or kind thereof proceeding from a water (as aforesaid) consisting and residing between the *Pericranium* and the *Cranium* or Skul. *Then* a pain affecteth the party; and in this case a two-fold Section or cutting part affected is to be administred. *Another* kind hereof there is from a water (as above said) gathered together betwixt the *Cranium* or Skul, and the Membranes. *Then* the swelling is not so soft as usually, but the pain is far greater; and the forehead is born out forward more than usually: and likewise also the Disease is almost, if not altogether incurable.

Chap. 7. *Of the Contusion, or Bruising of the Head.*

A *Contusion of the Head is a smiting or knocking together of the same (the external part thereof mean while for the most part, appearing sound and entire) by something that is weighty, hard, obtuse and blunt.*

The SIGNS are manifested by those things that went before; the blood is poured forth out of the Veins; and there is an excited soft Tumor or swelling, black and blewish, and yet without any great, or much pain.

The CAUSE is expressed in the definition. The Skin being for the greatest part whol and unhurt, there are notwithstanding smal Veins opened under the same.

The CURE is in such manner to be instituted, that, I. The great *afflux* or flowing to of the *Humors* may be prohibited; and that by blood-letting, if the Contusion be greater than ordinary; as also by laying to and applying repellers and astringents; which are often to be removed and changed, lest that they become overhot. The hair of the Head being close shaved off, the place is then to be anointed with the Oyl of Roses, about the time of the pains mitigation. II. Let the *Blood that is poured forth under the skin be Evacuated*, by the insensible Application of a berony plaister, the Cerot of searcloth of *Vigo*, that of simple or red Lead, or *de minio*, *de Matris ilva*, *de quatia dei*, &c. III. The *Suppuration*, (if it may not be impeded) is to be helped on, & furthered by *Triapharmacon*, which is compounded of one part of sweet Oyl, two parts of common water, wheaten Meal as much as wil suffice; unto al which the Yolk of an Egg is to be added. IV. The matter being converted into *Pus* or matter (a Section being made in a sloping place) is to to be extracted & drawn forth.

It is *divided* in a Threefold manner.

I. One

I. One is *with* a *wound of the skin*; of which we shal speak further in the following Chapter. Another is *without any* such *wound*; of which we now speak in this place.

II. *Another* is, in which the *Muscles* of the *Temples* are bruised together. *Then* doting, a Palsie, Convulsion fits, and death follow thereupon. A Section or opening ought to be instituted in some neer place, that so the Muscles moving the Head may escape unhurt. Another difference there is, in which the aforesaid *Muscles are not Confused* or bruised together.

III. There is one *Species* or kind thereof in men grown, and of perfect Age; of which those things that have been before spoken are to be taken and understood. Another there is of Children and such as are young and tender; in which, 1. (The Head being shaven or at least Polled with a pair of Sizers) a Linnen cloth throughly wetted in the white of an Egg, Vinegar and Rose water, is to be imposed and laid on; and then binding it about for the space of one whol natural day, the outward linnen cloth is to be moystened as aboveſaid. 2. The day following the Cataplasme called *Benedictum* is to be applied, and so to be continued on until the ninth day. 3. After the eleventh day, the Emplaster *Diapalma Galeni*, which is likewise to be shifted and changed the third day. 4. After the twentyeth day, the Emplaster called *Barbarum*. 5. If it proceed from Child bearing, the Emplaster *Diaphœnicinum* made of Roses, &c. doth excellently discuss.

Chap. 8. *Of the Wounds of the Head.*

Article, I. *Of the Wound of the Skin, and the Pericranium.*

THe Wounds of the Head are in a threefold difference. For either they reach unto the *Skin alone*, and the *Pericranium*, the *Cranium* or Skul *Remayning untouched*: or else they reach the *Skul, without touching* the *Membranes*; or else lastly, they attain unto, and reach even the very *Membranes* themselves.

The Wound of the Skin (the Cranium mean while remayning unhurt,) is, to wit, when the Skin alone, the fleshy pannicle, the Muscles, or even also the Pericranium is wounded.

As for what concerneth the SIGNS; the wound is either apparent unto the very view and sight; or at least it may easily be discovered with the Chirurgeons instrument termed the probe.

The CAUSE, in regard that it is evident and manifest, there is no need that we should speak any thing more thereof.

The CURE is various, according to the variety of the differences of the distemper.

It is *divided* into a wound *with* a *Contusion*, and *without* a *Contusion*.

In a *Wound with a Contusion* or bruising together, 1. It is to be moystened and mollifyed in such a manner, that the natural heat of the part, debilitated and weakened by the contusion, the external Air, by medicaments, may be together cherished. 2. In the very beginning we must act and operate with *Ripe Oyl of Roses*, mingled wel together with the Yolk of an Egg in bodies soft and fluid, but in bodies hard to be wrought upon, with the Rosin of the *Larix* or *Larch* tree. 3. *Turpentine* is very excellent and sovereign for al wounds, especially of the Nervous or sinewy parts. 4. About the seventh day the *Pus* or filthy purulent matter doth more apparently shew it self. 5. If it be from the biting of a wilde beast, then the Lips of the wound ought to be scarified, and the rotten nasty corruption must be drawn away by blood-suckers or leeches; and then the ulcer is to be throughly washed with appropriate Medicaments.

In a wound without contusion, 1. the internal cause, viz. The hot and painful *dyscrasy* of the part is to be removed, by anointing the same with unguent of *Allabaster*, roses, &c. 2. If the gaping lips of the wound cannot be close Joyned together with binding only, then the future whether bloody or dry, must be brought unto the touch; but some kinde of digestive medicament is to be imposed upon the wound: neither is this (notwithstanding, very easily done, and that by reason of the *pericranium*, which within adheres closly unto the *Cranium* or skul, and by the futures is knit and joyned together with the internal membranes. 3. The skul being made bare and naked by shaving (which is done, that so a fit matter for the generating of flesh may be supplied, neither yet is without much difficulty to be effected) there are no unguents or oyntments to be laid on, but medicaments both actually and vertually dry together with drying liniments, (and of a bone-like temperament) are to be applied.

applied. But see more of this in the practical Physitians.

Article. II. *Of the wound or fracture of the Cranium or skul.*

The wound or fracture of the skull, is a continual solution in the same, caused by some external violence and force, and yet such as reacheth not, neither attaineth unto the membranes of the brain.

The SIGNS are taken *as wel* from the concourse of the symptoms that follow it, (as for instance, a vomiting of Choller, a flux of blood by the nostrils and ears, a fal, a noise of a broken bone, &c.) as from the nature and condition of the blow, where regard is to be had unto the striker, or that which giveth the blow, unto the condition of the head receiving the blow or stroke, and the disposition of the instrument: as also it is discovered by the chyrurgions probe (which ought to be neither too sharp, nor over thick) by ink, and by shaving thereof, &c.

The CAUSES are evident, dissolving and loosening continuity in the *Cranium* or skul.

The CURE is not to be hoped for, (for *Cure* there is *none*) if after the seventh day a eaver come to appear; because it is a certain signe and token of putrefaction and rottennes in the brain; or if the wound become withered, dry, purulent, and black.

The cure is very *doubtful*, if instantly the patients strength and spirits fail him; (especially if the Party be old, because then his heat is by much, weaker, and the blood serous or wheyish) if the head be prone and subject unto distillations, and the tumors called *Erisipelas*; if the symptoms, that soon began to appear and shew themselves, on the fourth or seventh day, stil continue and rather increase than otherwise. The Cure is a work of *great pains* and difficulty, if it be to be attempted in the summer time in regard of a fear we are to have of an inflamation iminent and very nigh at hand; if it be in a moist Climate or country, because the brain is very easily offended by cold and moist things; if it happen at the ful of the moon, by reason of the abundance of humors more at that time than other; if the wound be very nigh unto the brain; if it be in the fore part of the head, and the middle of the brain, because that the brain being a neer neighbor hereunto is more arcuated or arched, and there is not fit passage left for the efflux of the filth and corruption; if it chance to be in the Temples, because the muscles of the temples do abound with arteries, veins, and sinues, or nerves, and so by this means the motion of the lower Jaw is much prejudiced and hurt; if it be in the sutures, both because that there the skul is weak, and because likewise that there the *dura mater* is knit unto the fibres; and lastly, if it happen with a contusion, in regard that the sayd contusion causeth very many, and those likewise hidden mischeifs and Evils. Touching the *ordinance* and institution of the *cure*, (if at least, there be any hope thereof) these things are to be observed, I. That the patient is to be *evacuated* or emptyed; because that in Plethorick and ful bodies even those wounds that are in themselves but slight and very inconsiderable do yet by reason of the abundant humidity attract and draw together many dangerous symptomes; insomuch that unto the milder and gentler sort of medicaments stronger may and ought to be added, and cheifly such as purge choller and the thin wheyish part of the blood; we ought likewise to institute and appoint venesection or opening of a veine; and clysters are also to be aplied. II. Those things that alter choler, and the serous humors, and do withal hinder the motion of hot humors unto the head, are cheifly and mainly profitable in this case. III. If the skin be wounded, and yet the orifice not wide enough, it is then to be more and wider opened, until that the whole fissure or cleft appear manifestly unto the view of him that searcheth it. But then indeed a Section or opening of the *Pericranium* ought to be attempted, when there is any suspition that the Skul is hurt. That kind of Section that is (in regard of its transverse lines) made like unto the figure and fashion of a Cross, is the most fit and proper in this case. IV. The Muscles of the Temples, (by reason of their Nervosity or Sinewines) ought very carefully to be avoyded in the aforesaid Section; and so likewise are the sutures, by reason of the transverse passage of the Fibres. V. In the wound of the Forehead, we must take heed that the Section be not made transverse: for if the Muscle that lifteth up the Eye-lid should by this means be cut, the Eye-Lid then Unavoydably falleth down. And therefore the Section ought to be made from some inferior part, and so upwards, &c.

The *Differences* of the Fracture of the Brain are five in number.

I. A *Fissure*, or cleft, from some heavy and bruising weapon, (in a harder bone) and that such as is very evident and conspicuous, inconspicuous, Capillary or hayry, short, Long, strait, Crooked, &c.

II. A *Contusion*, or collision, of which there are two Species. *One*, when only the Skul yieldeth and falleth down upon it. *Another*, when the Skul is only depressed, and acquireth and maketh a little pit, in a soft bone.

III. A *Depression*, when the bone is cloven, and so giveth back, and retreateth.

IV. That which we cal *Sedes*, when the skul is hurt by a sharp and keen weapon, insomuch that the print and mark of the Edg of the weapon laid violently upon it, is manifest and conspicuous. And hitherto also belongeth that *Species*, which they term *dedolation*, that is to say, a kind of hewing or squaring.

V. A *Contrafissure*, or *Xymphory*, which hath in it three several kinds. 1. When the place that is cloven, and that likewise that is smitten, are both of them in one and the same bone. 2. *When* the exterior part of the same bone being smitten, it (notwithstanding) remayning whol and sound, the interior part thereof is cloven and gapeth. 3. *When* a bone that is smitten by the cloven bone is disterminated by a suture. Concerning al which consult the Practitioners in Physick, and especially in the first place see the Golden Book of *Jacobus Berengarius Carpensis*, *Touching* the *Fracture* of the *Cranium* or Skul, printed and published lately at *Lyons*.

Article, III. *Of the Fracture of the Skul, together with the hurting of the Meninges.*

The Fracture of the Skul, together with the hurt of the Meninges, is two-fold.

For, either the *dura Meninx* is at least hurt together with the Skul; and *then* the blood flows forth abundantly in regard that there are many Vessels Scattered and running along throughout this *Meninx*; and likewise a sore and grievous pain in the Membranons part greatly afflicteth the Patient. In the *Cure*, (in the least not neglecting those things that respect the wound of the skul) the blood is first of al to be stanched. Then the pain is to be mitigated and asswaged with the Oyl of Roses a little warm. If it begin to grow purulent, it is then forthwith to be cleansed with honey of of Roses. If this effect not the cure, we must then have recourse unto those Medicaments that are far stronger, such as the *Unguent Ægyptiack*, &c.

Or else, the *Pia mater*, or the thin Membrane, is likewise together affected. And then an extraordinary efflux of blood, and withal an inflamation is to be feared. For the Cure hereof, See *Johan Hildanum Aquapendentem*, in the Second Book and twentyeth Chapter of his Chirurgery.

Title, II. *Of the Symptomes of the Brain.*

Chap. 1. *Of the Symptomes of the External Senses.*

THe Symptomes of the Brain do infest and disturb, *either* the sense of touching, *or* the common sense, *or* the imagination, *or* the imagination and the Ratiocination together; *or else* more than one of the internal senses, *or* the Animal motion, *or* the senses internal, external, motion, and the discoursive or Ratiocinative faculty, *or else* many of the actions of the Animal faculty al together; *or else* lastly, the excretion and rerention. The *Pain* of the *head* appertaineth unto the first of these.

A Single Article, *Of the distemper* Cephalalgia, *Or, the pain of the Head so called.*

The Cephalalgy is a disturbance and corruption of the touch in the Membranous parts of the Head, made and caused by the solution of continuity.

The *Subject* hereof is the Head, according to its Membranous parts, the Skin, and *Pericranium*, covered with Nerves and Membranes, and the very substance it self of the brain not excluded.

There is no need of signes; for it is sufficiently known by the relation of the Patient.

The CAUSE is, whatsoever any manner of way causeth a violent solution of Unity, whether it do this secretly and undiscernably, or else more manifestly and openly: whether this be any thing that is *External*, as for instance, al sorts of pulse in general, and particularly

cularly that which we cal *Ervum*, the drinking of milk, the nuts of Palm trees, and the acorns of the Oak tree, the ſeed of the willow, and the black olive tree, and laſtly, any ſtinking and offenſive ſmels, &c. or whether it be *Internal* and inward; touching which conſult and weigh wel the various differences.

There is here *Good hope* of a *cure*, if there appear on the fourth day good and promiſing Signs: if *pus*, to wit, ſnot or filth, or water flow forth by the noſtrils, ears or eyes. But is ſomewhat *doubtful*, if there be preſent with it an acute feaver, and that the urin be white, becauſe then the choler is carried upwards, and an inflamation is greatly to be feared; if the Patient vomit up that which is Eruginous, or in color like unto braſs; and that the Party be over long kept awake, and deprived of his reſt (eſpecially if a deafneſs accompany it) in regard that by reaſon of the choler that is gotten together, they ſuddenly fal into a violent and vehement madneſs; if they be ſurpriſed with a Congelation or taking (as we cal it) together with a ſtoppage of the belly a fierce and wild countinance, and that the face be extraordinarily red and fiery becauſe then they are ſuddenly ſurpriſed with a crick in the neck (that affect which we uſually terme *opiſthotonos*) if likewiſe there happen together with it a ſound or ringing in the ears without a Feaver, if there accompany it a *vertigo* or giddineſs in the head, a hoarſneſs of the voice, and a benummedneſs in the hands; for then they ſudenly become either appoplectical, or Epileptical, an Apoplexy, and Epilepſie or falling ſickneſs moſt commonly folowing thereupon. But there is no hope at al (or if any very little) if where as it was very vehement, it ſuddenly vaniſh away and conceal it ſelfe, there following no alleviation by the *criſis*; if the extream parts become exceeding cold, becauſe that the native heat being drawn back, a Phlegmon may eaſily be excited; if it happen to be with an acute feaver and that on the fourth day there appear ſome pernitious ſign or other; if a ſound perſon ſo ſoon as he is ſurpriſed and taken herewith, become inſtantly ſpeechleſs, and ſnort, and yet is not affiicted with any ſtrong feaver, whereby probably he might be freed from the aforeſaid diſtemper. The Cure (if there be any) is performed. I. By *mettigation of the pain*, either by anodines (of river *craw-fiſh* beaten wel together with roſe vinegar, *vervain* water, and the root thereof wel bruiſed and impoſed on the part affected, the *Allabaſtrine* unguent before mentioned; al wch ought to be applied unto the ſutures and temples: or elſe by *narcotick* remedies, which may only be applied unto the forehead, and layd thereon. II. It is to be accompliſhed by *removal* of the *Cauſes*, and *ſtrengthening* the *part*, touching which ſee further in the differences.

The *Differnces* of the *Cephalalgy* are many, and thoſe very various.

I. One difference hereof is ſymptomatical, of which we here treat. Another is *Critical*, which beginneth not to afflict the patient from the firſt riſe of the diſtemper, but much about the time of the *Criſis*: and *then* the breathing ſuddenly becometh ſhort and very difficult, the *Hypocondria* being drawn back; the veins are ſwoln, and the arteries beat in the Tempels; the cheeks wax red, and tears flow forth of their accord, the patient not being able to withſtand it; the ſick party ſtreacheth his noſtrils with his hands, and then moſt commonly there floweth a ſtreaming forth of the blood.

II. Another is *External*, which ſeizeth the *pericranium*, is perceived in the very ſuperficies, reacheth unto the roots of the eyelids, is exaſperated by the compreſſion of the hairs and hands. Another *internal*, which becomes eaſy and moderate upon the very touch, eſpecially if it be without any diſtention; and it extendeth it ſelf even unto the roots of the eyes.

III. Another is from *Cauſes External*, to wit, 1. *Ebriety* with beer in which the herb *Chamæpence* is boiled, eaſily and ſoon cauſeth. And *then* the *matter* fluctuating in the ſtomach is to be caſt forth thence by *vomit*. The leaves either of the *Colewort* or *Cabbage*, throughly moiſtened in warme water, or elſe the leaves of *Rue* wel bruſed together with roſe vinegar, are to be applied. The head is to be al over wet and beſprinkled with the ſpirit of wine, and the feet are chafed and rubbed with ſalt and vinegar. 2. By a *Contuſion*, ſtroke, wound; in which caſe the cure is to be ſought for above in and from their proper places. 3. By the heat of the ſun, the heat of a Bath, and of the ſoutherly winds: And *then* the head is to be delt withal by cooling fomentations, &c. 4. By the uſe of *other things* offenſive, ſuch as are dates, walnuts, cheſtnuts, Filbirds, toad-ſtools, hempſeed, the ſeeds of Coriander not prepared, Frankinſence, ſtyrax and Mirh if moderatly taken, &c.

Another is from *Internal* cauſes, to wit, 1.

From a *distemper* without matter, which if it be *hot*, the pain is vehement, and the head becommeth hot: if it be cold the pain lasteth so much the longer, and the head is cold. In this case the little rols or cakes of *diamoscum dulce*, and a little bag of heating Cephalicks are very convenient. If it be *dry*, the pain is moderate, dul, and not acute, and there went before causes that were extreamly efficating and drying. 2. From a *distemper with matter*, which is either from *blood*; and then the paine is more gentle and moderate, which cheifly seizeth the fore part of the head, and increaseth before the time of repast. The *Cure* is to be sought in its due and proper places. Or else it hath its original from *yellow choler*, and then the pain is extreamly pricking and corroding, and for the most part fasteneth upon, and seizeth the right side of the fore part of the head. In the *cure*, those things that are most fit and likely to effect it, are Epithems of *Opiat Laudanum*, with rose water, vesicatories applied unto the neck, the smelling of rose water with Camphire, washing of the head with a *decoction of agarick*, together with the flowers of camomil, scarification of the lips, of the ears, &c. or else it procedeth from flegm; and then a pain afflicteth the patient on the right side of the hinder part of the head, rather then elsewhere. Medicaments good and sucessful against this malady, are, *oxymel* with *squils*, the water of the flowers of the *elder tree*, of *penyroyal*, of *rosmary*, with cristal of nitre; the shels of *peaches* beaten together with verveyn water; the oyl of *nutmeg* pressed or drawn forth, the Ballam against the *Apoplexy*, that of *yellow amber*, and the sacculus or little bag of *Hartmannus*. Or else it ariseth from blak choller or *melancholly*; and then the watchings are very extream greivous, together with a pain of the left side of the hinder part of the head. Let the cure be sought for in its proper place. 3. from a *wind*, and then the pain wandereth (as it were) and flyeth up and downe, hither and thither, it puffeth out and extendeth the part where it is, often returning and running back again at some certain constant hours of the day. It is *discussed* & scattered, if so be that the temples and the coronal future be frequently anoynted and chafed with garlick throughly bruised, and then mixt together with wine vinegar, or the Urin of an Infant.

III. there is Another *Cephalalgy*, that is, such in its own *essence*, (we term it primary) which now and then ariseth likewise from *worms*, with a certain kind of gnawing, and an itching of the nostrills; and this comprehendeth under it al the fore-mentioned differences. Another there is *by the consent* of the Heart, (as in feavers) of the hypochondria, the stomach, the wombe, &c. and this for the most part is *hemicrania*, and afflicting only the one half of the head; see the first Title of the second Chap. of this Book.

IIII. Another *Cephalalgy* there is peculiarly and *specifically, so called* which indeed is nothing else than a *pain* that as it is *new*, so it is also very *light* and gentle, *and* such as is *most easily removed, without any great imbicillity* and weakness; having its original (most usually) from causes external, likewise it is accompanyed with a Feaver.

V. Another is that we terme *Cephalæa*, or, *a long continued contumacious pain, Infesting and annoying with the greatest paroxysmes* (and yet notwithstanding, *such as are stirred up even by the smallest* and most inconsiderable *causes*) *the whole brain, and head, or at least*, to be sure, *the greatest part thereof, but most especially the Membrains*. Another called *Hemicranio*, which is a painful distemper of one half part of the head only, which ariseth from those parts that are situated beneath it. In that that proceedeth from *the stomach*, there is usually perscribed (as most profitable) for evacuation the *Pils* of *Fernelius*, formed of the best Aloes half an ounce, the powder of the Electuary of precious stones, or *de Gemmis*, of the three saunders (called in the shopps *Diatrion santalon*) and red Roses, of each of these six Grains; and so made up (to the number of thirty) with the Syrup of Wormwood and violets; and then two or three of them are to be swallowed down the tenth hour before supper. Unto the Head there may be applied and laid on an Epithem of the green *Root* of the *Wild Cucumber*, boyled together with Vervein and Wormwood of *Pontus*, in Oyl and water.

Chap. 2. *Touching the Symptomes of the Common sense.*

Article, I. *Of over great and extraordinary watchings.*

THose Symptomes that infest and invade the common sense, are watchings, and a drowsie and *sleepy distemper*, called *Coma*.

Watchings preternatural are, the exercise & wearying of the common sense, and the external

nal (likewise) beyond a due and fit measure; arising from the continual uninterrupted influx of the spirits into the Organs.

There is no need at al of SIGNS, For the relation of the sick wil suffice.

The CAUSE is expressed in the definition. But the *Spirits flow in*, becaus they can by no means be brought to rest and sleep; and that either in regard of externals, to wit, objects (overmuch light, cares, Cogitations or thoughtfulnes) or else by reason of somwhat internal, to wit, a hot distemper of the brain, a pain, &c. the *cure* is *difficult*, if the said watchings happen unto those that are young, and not at al accustomed thereunto; if they bring on the party a doting, or a Convulsion, or a cough; if they last long; if they have their Original from internal causes. The Cure *consists*, I. In *Removing* of the *Causes* that occasion and produce those watchings. II. In *Procuring sleep*, either by cooling Cephalicks outwardly applyed, or inwardly given, or else by Narcoticks. The Fat of the *Fish Lucins* (that is, the Pike) annoynted upon the Temples, the *Hypnotick* Wine of *Mynsichtnus*, the Soporiferous Compound of *Saxony*, the Liquor of the *smal spungy sprigs* of *Eglantine*, pressed out of them after they are come to a maturity, *Opium* corrected with Saffron, the magistery of Corals, and the spirit of Vitriol, a pultise of *Poppy seeds* with the *Oyl* of *Hen-bane*, and the breast milk of a woman, applied to the pulses, and the *Pediluvium* (or Lotion to wash the Feet) of *Hartmannus*; &c. al these are excellent for the purpose aforesaid.

The *Difference* is taken from the Causes.

Some of them are from *External Causes*, to wit, 1. The passions and affections of the minde, Fear, Grief, Cares, Custome; (and then these things are to be removed) and becaus they are wont to occasion the distemper of the head, we ought to withstand and prevent the increase and growth of the Humors. 2. They proceed from the objects of the external senses, which are to be rejected. The annoynting of the Nostrils with *Oyl* of *Nenuphar* or the water Lily, and the eating of Lettice, is here in this case much commended.

Others there are from *Internal* causes, to wit, 1. From a *hot* and *dry distemper*, either without a Feaver, which disturbs and drives to and fro the spirits, and dissipates the vapors; (The cure of this may be sought out in its own proper place:) 2. *From hot Vapors*, that are sharp & salt, which disturb and trouble the spirits by their pricking and twinging the Membranes of the brain. These, *either* they are elevated by some Apostem of the Head, and that *either* from the whol Head, *or* from some certain parts thereof; and this likewise *either* without a Feaver, *or* with a Feaver. The Signs and the Cure ought to be sought for out of their own Chapters: Those Medicaments that qualifie, sweetly allay and temper the Vapors, are to be exhibited after supper. 3. *From the defect of Vapors that might cause rest and quiet unto the spirits*; in regard either that they are not al generated, (as it happeneth after an overlong abstinence from food, and by reason of crudities in the stomach, and *then* in this case, in the Cure, a special regard is to be had unto the Diet) *or else* it is, becaus that these Vapors, so soon as they are generated, they are forthwith dissipated and scattered; like as it chanceth in an hot distemper: and *then* a regard also is to be had unto the same. 4. From *Pain*, in which when once the common sense is together affected, it being vehemently and violently moved, al the other senses moved and disturbed together with it. And hitherto apperteyneth a Cough, the flux and extraordinary loosnes of the Belly, &c. which deprive a Man of his sleep.

Article, II. *Of the sleepy and drowsie Coma, or Cataphora.*

The somnolent or sleepy Coma is a deep and profound kind of drowsines, arising from hence, to wit, that the Sensus Communis, or *Common sense, is become so dul, sluggish, and stupid, that it permits not the Animal spirits to be diffused unto the external senses, neither doth it know, or is able to Judg of those objects that it receiveth from them.*

The SIGNS are taken from this, to wit, that the sick party sleepeth for the most part with his lower Jaw-bone hanging down, and with his Mouth gaping and wide open; when he is rouzed and stird up he openeth his Eyes, and answereth, but immediatly again falleth asleep. And so it is distinguished from the sad distemper *Carus*, from the the Apoplexy, and the suffocation of the Womb.

The CAUSE is, whatsoever impedes or hinders and prohibites the influx of the Animal spirits unto the Organs of the senses, and withal Renders those spirits more unapt unto the Animal actions and operations.

The CURE is *Doubtful*, if it follow upon

upon the extream imbecillity of the Patients strength, occasioned either from some most acute Disease, or else from some deplorable and grievous affect of the brain; if it chance in continual Feavers; if it hath its original from some malignant cause. There is *almost no Cure* to be expected, if it take its rise from hot and dry Diseases; for then by this means of necessity there must needs be an extraordinary cooling in the brain; if the malady grow to be so sad and grievous, that both the sense, motion, and the very breathing it self is taken away. In what things the Cure cheifly consisteth, and by what means it is to be worught, see further in the various differences thereof.

It is *divided* according to the variety and difference of the Causes.

I. There is one *Species* thereof, that ariseth from the *Humidity*, or the *frigidity* of the *Brain*, And *then* the matter in the Head ought to be Evacuated and discussed, in the former of them, by the irrigation or the frequent washing of the Head with the *sharpest sort* of *Vinegar* throughly mixed together with Roses and *Camomil Flowers*; but in the latter of them, by anoynting the Head with Dil Oyl a little warmed. And in both of them we must remember to put in practise the frequent use of Apophlegmatismes, Errhines, and sternutatories. Another kind thereof there is from *Narcotick Vapors*, inducing and bringing in a certain dulness (and unaptness for any thing) upon the Animal spirits; which said Vapors *either* are from over much drink; (and *then*, the drink yet remayning in the stomach, Vomiting is to be excited and provoked) Or, for the greatest part they are conjoyned with Feavers. *Then*, 1. The Vapors are to be drawn back, either by opening a Vein in the Thighs, or by Clysters, frictions, Cupping-Glasses, &c. 2. The same Vapors are likewise to be repelled and driven back by *Oxyrrhodines* (to wit, Medicaments consisting of Vinegar and Roses) actually hot, and applyed to the Coronal suture; unto which former remedy let the Vinegar that is added, be in a plentiful measure; *or else*, which is yet better, they are to be discussed with Rue, Castoreum, Vinegar, &c. 3. Great caution must be had lest that those Remedies that are exhibited and administred to expel sleep and drowsiness, should any way augment the Feaver. Or otherwise, these Vapors afflict without those feavers. And *then* they are elevated and drawn up from the stomach, Womb, or some other inferior part. These are to be taken away by the very same remedies as the former were. Those things, that infringe & weaken the strength of *Narcoticks*, are, *Rew with Vinegar*, the ballam of *Rice*, *Castoreum*, *Nightshade*, snuffing up the fume of *Brimstone*, &c. As for the Diet, what it should be, see and consult the Practitioners.

Chap. 3. *Of the Symptomes of the Imagination.*

A Single Article, *of the Vertigo, or turning round of the Head.*

THat Symptome of the Imagination which likewise very often hurts even the common sense also, is called *Vertigo*, *which is nothing else, than a false imagination of ones turning round & dizzy reeling about, arising from an inordinat and circular motion of the Animal spirit in the Forepart of the brain.*

The SUBJECT hereof *is*, the brain, according to its anterior, or forepart, as it is an organical part, as it containeth the Animal spirits, and as it is endued with certain passages in which the said spirits are moved.

Of SIGNS there is no need at al. Unto some of them al things seem to be turned about as in a Ring or Circle; others of them have their very sight obscured; and again in some of them there is sensibly perceived a sifling Noise, and as it were a kind of singing in the Ears, &c.

The CAUSE is whatever either suppeditateth and generateth Vapors of themselves, and in their own Nature, such as are garden Radishes, Garlick, Mustard, Wine, &c. Or else, such as is wont to stir, disturb, and agitate the Humors; and hitherto appertaineth purgation, as being cheifly requisite in this case.

The CURE is very doubtful, and scarcely to be hoped, if this distemper happen to Old people, because they have but a weak brain; if it continue long, because it is then the forerunner, and indeed the foreteller likewise of the Epilepsie, or the Apoplexy, if in it the Head or the whol body seem to wheel and turn round. The Cure is *Performed*, I. By *Discussion*, and then let the holes of the Nostrils be annoynted with the Oyl of *Marjoram*, and the Oyl of Nutmeg; or else together with the aforesaid, let Rose water and Vinegar be put and applied thereunto: let the Temples, and

and the hand-wrists be anoynted with rose vinegar, and Rose water, mingled with a drop or two of the Oyl of *Cinnamon*; or else let them be throughly wet and besmeared with the Juyce of the black beet: let the pallate be annoynted with Treacle. II. *By opening a Vein*, if it be over powerful and violent. III. by *Revulsion*, if it proceed from the inferior parts. IV. by a Diet, in the which meats that are known to generate many Vapors, beer brewed with much Hopps, and such like hurtful things, are carefully to be avoyded. For a preservative, Caraway seed macerated in Wine, dryed, and dayly taken about the time of going to bed, is held to be very excellent.

The *Differences* are taken from the Causes.

I. One is from *Causes* that are *Evident*, exagitating and exasperating the spirits; and such are a turning round of the whol body a long while together, looking much and steadily upon things while they are moved circularly, and a prospect or looking downward to the earth from a place of an extraordinary heigth. For so by this means the spirits (by the beholding and looking upon any thing unto which it is not accustomed, or that is dreadful and terrible) are diffused and drawn back. It is *known* by the relation of the sick party. It is cured by rest and sleep. If it yet be not altogether ceased, then we are to conclude the Cure by frictions. If it be from *Hunger* and fasting, a piece of bread dipt in the Juyce of *Pomegranates*, or in sharp sowr wine, is first of al to be administred.

II. Another is from the narrowness or *Streightness of the Passage of the Brain*, through which indeed the Animal spirits are moved; but when they are thus impeded and hindered, they then retreat back again. It *ariseth* either from a partial obstruction, which if it be caused by gross and thick Vapors, it is soon dissolved; if it hath its rise from serous and Phlegmatick Humors; it is then of a long continuance, and there is withal present a sense of fluctuation. In the Cure there ought to be a respect had unto the Nature of the Cause. Or *else* it proceedeth from the compression of the brain, and the fracture of the skul; of which see further in their own propper places: Or *else*, it is from the *Coalescence* or knitting together of the Arteries, from their first rise, and their entering into the scalp or Skul, by that general and common passage through the brain, touching which there is hardly any thing to be certainly determined, while the Patient liveth.

III. Another is from a Vapor ful of windiness, generated and bred in the brain, which by an inordinate motion being poured forth into the Veins and Arteries, doth so trouble and disturb the Animal spirits by driving to and fro, that they thus become to be circularly moved and turned round, and then they exhibite and represent unto the common sense or Phantasie this falf and feigned species and appearance of things, otherwise than indeed they really are. It is *known* by that vehement pain, and dul heavines of the head, a long continued tinging and hissing Noise in the Ears, and a certain kind of hurt and detriment of the external senses. This Evil or Malady is very frequent, and such as surpriseth a man upon a very smal and light occasion; and yet it lasteth, and (as we use to say) sticketh long by him. It *ariseth* from causes that generate and breed winds and windiness, and more especially if the wonted Evacuation be suppressed. It is *Cured, either* in the Paroxysm, (of which we have before spoken) *or*, out of the Paroxysm; 1. By the *Evacuation* of the *Matter* that fomenteth and supplieth these Vapors; and that as wel a general as a particuliar one. Some there are that are afraid to prescribe, and there are others again as fearful to take those Medicaments that Practioners term *Errhines*, which are to be taken up into the Head by the Nostrils, to open and purge the brain. 2. by *Revulsion* or drawing back of the said matter, as also by *Derivation*, and *Discussion* of the same, by Vesicatories, Cauteries, frictions and lotions of the Head. 3. By *Corroborating* and strengthening the *Brain*, both by external and internal Remedies. Among the specifical and Appropriate Medicaments, those that deserve the greatest commendation, are, the *dung* of the *Peacock* (one dram thereof by weight) macerated in Wine, strained, and so drunk up; the extract of *Scorzonera*, the Roots of *Doronicum* (an excellent drug brought out of *Mauritania*) eaten, *Bears Ear*, the fat of *Does*, and land *Snakes*, by annoynting the Temples therewithal; the pouder of *Silk-worms dryed* and strowed upon the Crown of the Head. Very effectual likewise for this purpose, are, the spirits of *Rosemary*, the Chymical Oyl of *Yellow Amber*, *Hippocrates* his *Treacle*, the pouder of the *Right mineral Cinnabar*, half an ounce thereof: *Margarites prepared*, and *red Corals prepared, of each two scruples*; *Saffron one scruple*; and then add to the aforesaid ingredients

ingredients the *leaves of Gold, in number ten,* and so let it be administred (the dose is one scruple) in the water of lillies of the Valley; and lastly, the electuary of *Saxony.* It is *divided* into that which is from extream *hot blood*; and *then* there is present a redness of the Face, and a beating of the Arteries. In the *Cure,* especial regard is to be had unto the opening of a Vein, and that cheifly and primarily, of the Basilike, if a Plethory accompany the distemper; and then presently after, of the Cephalick or head vein, if the peccant matter abound most, or only in the head. It is not to be drawn forth al at once, but by many Essaies, at several times, by intervals. We ought not to be over rash in attemping the cutting or opening of an Artery: and into that, *that is from a pituitous* or Flegmy Humor. *Then,* the place where we have treated of the Flegmatick distemper is to be consulted. An Evacuation (after that a Clyster hath first of al been administred) may very conveniently and successfully be expedited by the extract of the *Pils* called *Cochiæ,* from half a scruple to a scruple; by a *Lixivium,* and a Balsam: See further hereof in *Agricola,* in his first Book, 38. Chap.

IV. Another there is from an extream *windy Vapor,* elevated from other parts. It is *known* by this, that there went before it no hurt or annoyance of the senses, and that the distemper afflicteth the party frequently, and by fits; and withal there are present the signs of the part affected. It ariseth either from the *stomach,* either pirrocholick or ful of bitter choler, or Pituitous and Flegmatick, or else by reason of its imbecillity corrupting al the food that comes within it: and then the *Cure* must cheifly respect, and be directed unto the stomach. And here take place (as most requisit and proper) a *grain* or two of *Frankincense* taken after meals, the confection of *Fennel,* of *Coriander,* Sugar of *Prunella, Saccharum Rosatum* or Sugar of Roses, the electuary of the Conserve of old red Roses, *Diacydonium* simplex, that is an electuary of the conserve of Quinces, the spirit of vitriol, and the Syrup of mints. For what remayneth to be done in this Cure, see more in the diseases of the stomach. Or else it ariseth *from the Liver, Spleen, Womb, whol Body,* as it usually happeneth in Feavers: and then in this case there ought to be an especial Care and regard had unto the Nature and condition of the parts affected, and the Various Symptomes.

Chap. 4. *Of the Symptomes of the Imagination and the Ratiocination, when they are hurt.*

THe symptoms hurting the imagination and the Ratiocination or rational faculty, are, the *hurt of the Memory, dotage, a Phrensie, Melancholy, madness,* and *Raging* or raving, which we term *Hydrophobia.*

Article, I. *Of the hurt of the Memory.*

The hurting of the Memory, is a diminution or utter abolition of the same, arising from Causes that hurt the dryness of the Brain conjoyned with a moderate heat, (and very necessary as to the meomry) and so by means rendring the Animal spirits, either torpid, that is over dul and sluggish; or else (which is as bad) inordinately moveable.

There is no need of SIGNS; for the very actions of the sick party discover the Symptomes.

The CAUSES that hurt the temperament of the brain (that is absolutely necessary for the preservation of the memory) either they *weaken* and *diminish the Native heat,* and that likewise either *Externally,* as do al things of a Poysonous Nature; al Narcoticks applied to the fore part, and likewise the hinder part of the Neck: or else *Internally,* as doth a temperament cold, and moist, which either affecteth Children and ancient people, by reason of their Age; or else it afflicteth others, by reason of meat and drink that is of a cold and moist Nature, or by reason of a Gross and thick Air, sicknesses, and other Causes, (of which we have already sufficently spoken in the cold distemper) Or otherwise, they *dissolve* the said *Natural heat*; such as are, externally, al Philtra or amorous potions, watchings, excessive thoughtfulness, Medicaments, that are hot of quality; *Internally,* hot Diseases, impostums of the Brain, abundance of Yellow Choler, &c. Or else they *exalt the same,* such as are hot and dry temperaments, that cause an inordinate motion of the Animal spiritts. Or else lastly, They *impede and hinder the motion of the Animal spirits*; and such are, a less (than is requisite) conformity of the head and brain, the over great thickness of the same, &c.

The CURE respects the several Causes, and may be taken and understood, by what hath

hath been already above ſpoken. Thoſe medicaments that are *appropriated*, either for the conſervation or reſtoration of the memory, are reputed and accounted to be that they term *Tinctura lunæ*, taken in the water of lilies of the vally; The *pouder* of *Trithemius*, (of which there is ſufficiently ſpoken in the miracles of *Mullerus*) the *Anacardine Confection*, in weight half a dram thereof exhibited and taken with al poſſible cautions unleſs haply an hot and dry temperament hinder it. Thoſe things that reſiſt, and therfore are good againſt a cold and moiſt diſtemper, are, that water that Practitioners cal *Aqua Magnanimitatis* Cunradi. The *lily of the vallys*, *balm frankinſence*, in weight half a ſcruple, taken with wine, Nutmeg, &c. Toughing which conſult the practitioners in Phyſick.

Article. II. *Delirium, or dotage.*

A *deliry* or dotage is a depravation of the Phantaſie, and the ratiocination Faculty, ariſing from the bringing and preſenting of an abſurd and inconvenient Phantaſme.

The SIGNES of a *delirium*, *beginning*, are garrulity or talkativeneſs in a perſon of few words, and ſo on the contrary; fierceneſs in a quiet and mild perſon; ribaldry and ſcurilous ſpeech, the quick motion of the eyes, in regard that they are aſſociated with the brain, Arteries, veins, and nerves; a pulſe with perturbation in the *Hypocondria*. But the ſigns of that that is *preſent*, are ſpeeches and actions that the patient hath been altogether unaccuſtomed unto, and which in themſelves are indeed very abſurd and incongruous.

The CAUSE hereof is an abſurd Phantaſme having its riſe and original from a default in the Animal ſpirits, (as wel thoſe that are fixed, as thoſe that are movable) which ought to be pure, clear and tranſparent, temperate, and regularly and ordinatly movable: For if they twerve from thoſe aforeſaid requiſites, there is then an error and miſtake communicable unto the Phantaſmes (about and upon which the Reaſon is employed and buſied, and then thoſe Phantaſms are repreſented unto the intellect or underſtanding) otherwiſe than they ought to be.

The CURE is different according to the variety of the differences.

It is *divided* into a dotage that we cal *primary*, and that which we cal ſympathetical.

I. The Primary is that, when the brain is in its one proper ſubſtance and eſſence (that is, in it ſelfe) affected, and this is either *with a feaver*, (of which more in the Chapter following) or elſe, *without a feaver*, containing under it, *as wel* that wherein *Paraphora* and *Leron*, (that is to ſay, an error of the mind, or a dotage and buſying of it about toies and trifles, proceeding from the imbycillity of the principal faculty, by reaſon of an immoderate flux of blood, or elſe by reaſon of long continued watchings) as *that* we term downright folly, in the which the principal faculties are not only impared, and diminiſhed, but likewiſe extreamly depraved, and corrupted.

II. That which is *ſympathetical*, when the Cauſe is communicated from other parts. It is *diſpoſed* and divided into that which is *without a feaver*, (which comprehendeth under it *temulency*, or a kind of drunkeneſs and diſtemper brought upon the ſpirits, either by wine, or beer; or elſe from *hemp*, *darnel*, *benbain*, the dry *ſticks* of that they cal *Levanthe*, the rinds of *mandragoras*, *opium*, and the like. Thoſe things that preſerve are the ſmal ſtrings of wormwood and Rew eaten upon an empty ſtomach, the cabbage or colewort, and a morſel of bread eaten after a draught as aforeſaid; thoſe things that *accompliſh the cure*, are, vomits, and the uſe of things Acid, and ſharp &c. (and into that, that is *with a feaver*, which often hapeneth in acute feavers, and not otherwiſe; And *then* the feaver is at hand, and preſently appeareth: if it ſhew it ſelfe in the very begining, without any apparent ſigns of concoction, it introduceth a Phrenſie, which is quallified & in great part removed by ſleep: but if it happen to be with concoction and other hopeful ſigns and tokens, then it is Critical and decretory. It is *cured*. 1. By *revulſion*, by the opening of a vein in the feet and other ſuch like remedies. 2. by tempering and allaying the extraordinary heat of the blood in the head, by topical or local medicaments. 3. By the application of *hypnoticks*, or medicaments cauſſing ſleep. 4. both by the evacuation of the *matter* which hath already ſeized the head (and this is to be done by openinin g either the forehead, or the tongue vein) and likwiſe by the *diſcuſſion* of the ſaid matter, by applying unto the head pidgons diſſected and cut in midſt and withal the decoction of Camomile, &c. Or elſe it happeneth *in an inflamation* of the parts, and eſpecially the diaphragme. And *then* the breathing is unequal; the Hypocon-

dria are violently drawn back more inwardly; there is likewise Joyned therewith a deliry or dotage, together with a Cough, and a pain of the side, The *Cure* ought to proceed according to the Nature and condition of the part affected.

Article, III. *Of a Phrensie.*

A Phrensie is a perpetual and Continual deliry or dotage, arising from the Inflamation of the Membranes of the brain, and afflicting the Patient with a continued Feaver.

The SIGNS are, a perpetual doting, a continual Feaver, incessant watchings, and short and frequent drawing of the breathe.

The CAUSE is an inflamation of the Membranes of the Brain; of the which we have already above treated in this very Book.

The CURE ought to be ordained according to the Disease, the Nature of the watchings, and the suppression of the Urine. *In this distemper, Venesection* or blood-letting is one especial, if not the only Remedy. But then a plentiful measure, or, as we say, good store of blood is sometimes to be drawn forth at the Nostrils, by putting up a Feather made into the fashion of a Star, even unto the very Root of them, and forcibly turned about therein. But touching what we are now upon, more may be seen in what hath been already delivered concerning the Inflamation of the brain. Neither must we forget, (by reason of *those* aforesaid watchings) together with repellers, to mingle Hypnoticks, that cause rest; or else they ought to be administred severally and by themselves alone, as we see good. Three grains of *Opiat Laudanum* cautelously administred in a convenient liquor, (least the Phrensie should by any means degenerate into that Disease we cal *Veternus*, that is, the Lethargy, or drousie distemper) are very much commended. *This* said mutation or change is wont to happen, either of its own accord, or else because the sick persons neglect, & cannot endure to reply unto those that speak unto them; and it is soon removed and taken away by the use of Emollient Fomentations. In this greif, there have their use, that which we term *Luna Potabilis Hartmanni*, six drops thereof; and that they cal *Pharmocum Phantasticum*, of Bartoletus, (the dose whereof is from one dram to two drams) & lastly, the spirit of *Terra sigillata*, or the sealed earth brought from the Isle *Lemnos*.

Article, IV. *Of Melancholly.*

Melancholy is a dotage arising from a Melancholy phantasme, with the which whosoever is affected, and deteyned thereunder, he becomes wholly and only addicted to thoughtfulness, being as it were altogether ingulphed therein, without either fury or Feaver, but yet without pensiveness and fearfulness.

The SIGNS are, a deep sadness and fearfulness without any apparent cause, and then likewise another sign is Taciturnity, and a long continued silence, or else incongruous discourse, and talk at random, and this more especially of some one thing more than other.

The CAUSE is a Melancholy Phantasm that proceedeth from an error, vice, and distemper of the Animal spirits, the which (when as they ought to be clear, thin, subtile, and moveable) are hereby rendered and made obscure and misty, opacious, thick and dark, as also fixed and almost wholly immovable. And hence it cometh to pass, that al kind of objects are imprinted upon their several species, according to the condition and quality of the vitiated and depraved disposition of the spirits. And they acquire and gain this disposition from a *default in the Brain*, declining from its genuine whitness, and generating such like spirits as these: or else they have their original from some default in *the matter out of which they are made* and bred, to wit, the blood and the Vital spirit: or else lastly, they got this vitious disposition from some *impure* and melancholy *Matter*, (which is mingled together with the blood and spirits) whether it be an Humor, or a vapor, or both.

The CURE is *facil* and Easie, if the distemper be recent, and but now beginning; for so it is cured by diet alone, together with the humectation of the whol body, and somtimes of the head in particular; as likewise if the Body receive any augmentation and growth from the aforesaid food; if only the imagination be no more than hurt; and then again, if it be with some kind of laughter accompanying it. But Cure there is *none*, if the affect be hereditary. See above further hereof (touching the *Progress* to be made in attempting the Cure) in the Chapter of the Melancholly distemper of the brain; and below, in the differences. Notwithstanding, observe here. 1. That in this case an especial regard is to be had of the diet; and that sleep by al

manner

manner of means be procured, leſt that haply the Patient fal frantick and mad. *Vinegar* is not here to be adminiſtred, but only that by it the dry Vapors may be diverted and called away from the brain. A Bath of ſweet water is by no means to be neglected. 2. That the ſick perſon is to be wrought into an Imagination quite contrary. 3. That now and then for ſome certain time the Patient muſt wholly abſtain from Medicaments. The Remedies that in this caſe are commended, are, *Confection of Alkermes*, the *Tincture* and *Extract* of *Lazulus*, *Elixir proprietatis*, the *bezoar ſtone*, *Cachunde*, an Indian Medicament; the deſcription whereof ſee *in Lacutus* his Phyſical Hiſtory, 1. Book, Page, 310.

It is *divided* into ſome certain ſpecies.

I. One is that of the *brain*, when the brain (in the Nature and quality of its ſubſtance) departeth from its natural cleerneſs and purity. It is *known by this*, that the doting is perpetual and vehement; that there are preſent ſigns of Melancholy abounding in the head; that the blood, if it be let out, is not thick, nor black. It *ariſeth Externally*, from a ſtrong Phanſie or imagination, from fear & other ſuch like ſad and grievous affections of the mind. It ariſeth *Internally*, from a Melancholick Humor heaped up in the head; and this, either by reaſon of ſome acquired cold diſtemper of the brain; or elſe in regard of its Melancholly conſtitution, (which may ſoon be known from the affects) or otherwiſe, laſtly, by reaſon of ſome cold and dry matter left behind in the brain, after ſome hot diſtempers there, the heat now abating, and the thinner part of the matter being now reſolved, and gone. It is *Cured*, 1. By the *Alteration and Preparation* of the peccant matter by *Fumary*, the water or ſyrup of ſweet ſmelling Apples, and Tartar of Vitriol. 2. By the *Evacuation* thereof with the *Extract* of *Hellebor* (the inferior waies and paſſages being firſt opened) by Errhines, and Sternutatories. 3. By Procuring reſt and ſleep in the uſe of Hypnoticks. 4. by Corroberating and ſtrengthening the Head, by the Tincture of the *Chryſolite*, and other appropriate Remedies.

II. Another is that of the *whole* Body, when a Melancholy blood aboundeth throughout the whol body, and is from thence tranſmitted unto the brain. It is *known* by this, that the deliry or dotage is indeed continual; but yet ſo, that it is with ſome certain exaſperations, exacerbations, and remiſſions; and likewiſe, in that there are preſent ſigns of Melancholy abounding in the body, and that there went before the Cauſes thereof. It *ariſeth* from its own proper Cauſes, of which we ſhal ſpeak further in the Differences. It is *Cured*, by the frequent repetition of *Veneſection* or blood-letting. But becauſe there are but very few ſpirits in Melancholly perſons; it muſt *not be of too much blood at once*; it may be either in the left Arm, or in the Ankle, or elſe the thigh Veins (if large) may be opened by Leeches. 2. By a *Preparation of the Humor*, by the Syrup of *Odoriferous Apples*, *Fumary* with the cream of Tartar, & Tartut vitriolate, by the fection of *Alkermes*, the Whey of *Milk*, with the Juyce of Cichory and Fumary. 3. By a *gentle Evacuation thereof*, often Reiterated, and corrected by ſuch things as corroborate the ſpirits and the principal parts; and likewiſe by thoſe things that Humectate, moiſten, and mollifie; but then the Evacuation may, and ought to be ſtronger, if ſo be the blood be over thick, and unleſs the body be already extreamly and over much waſted. This Evacuation muſt be ſeconded and followed by Moyſtening Baths, unto the which Emollients are to be added. 4. By drinking of *tart*, ſharp, and ſomwhat ſowr potions, and alſo by the uſe of hot *baths*. 5. By the *ſtrengthening* of the *Head*, both by internals and externals, among which *Embrochations* are highly, and indeed cheifly commended. 6. By a *Diet*, in the which there ought to be a careful and continual abſtinence from al ſorts of pulſe. It is *divided*, according to the Nature and diverſity of the Cauſes. 1. One is from Cauſes altogether *external*, as Fear, watchings, Cares, al which exſiccate and dry up the Radical Moiſture, have in them a power ſufficient to alter and change the blood in the whol Body, and to detain the Melancholy Humor. Now then, in this caſe, *Veneſection* is not reputed to have any place at al. Another there is *from internals*, to wit, either an hereditary conſtitution (which indeed ought not over haſtily and raſhly to be tampered withal) or elſe, from either a cold and dry, or a hot and dry conſtitution and diſpoſition of the Liver and ſpleen; in the which upon the ceſſation of the burning Cauſe, the heat likewiſe ceaſeth to be, and the thicker parts, that are cold and dry, are left to remain behind. And then, either it is *with blood*; (from whence proceeds a doting with laughter) or elſe, *with flegm*, from whence happeneth a dul ſloathfulneſs and oblivion;

or with *yellow choller*, from whence procedeth anger, &c. In the *Cure* a regard is likwise to be had unto the nature, quality and condition of the Causes.

III. Another is of the *Heart* when the vital spirits that are bred, by reason of a cold and dry distemper, are cold, dry, and of an impure nature. The *Cure* differeth nothing from the former.

IIII. Another is *Hypocondriacal*, when a melancholly humor, (that is sometimes cold and serous or wheyish, or else oftentimes that which is adust and burnt in the branches of the Porta vein) is gathered together in the hypochondria, and so from time to time by those black melancholly vapours that are continually sent forth, poluteth and defileth the Animal Spirits in the Brain. *It is known* by this that it seizeth the party by intervals, and at some certain seasons; and most commonly in its access and approach it surpriseth the party suddenly and without any notice given; but sometimes again (and that likwise very frequently) it first of al causeth ructures, windy belchings, together with a pain diffending and streatching forth the stomach; and then by and by it introduceth great anxiety of mind, difficulty of breathing, the palpitation of the heart, the immovableness of the tongue, and at length a mist and darkness before the Eyes, a tingling and (as it were) ringing noise in the Ears, and lastly, a stupidity and benummedness in either or both of the Arms. It *ariseth* from a feculent and dreggy Vapor, that being collected and gotten together in the Hypochondria from a Melancholy humor flowing from the *Antipraxy*, (as we so term it) or renitency of the Spleen, Liver, and Stomach; and then tending upwards toward the superior parts, and forcibly rushing in upon the members, it produceth and brings in the aforesaid Symptomes; and being transmitted and sent into the brain, either by the Orifice of the stomach, or else by the branches of the Vena Cava (or hollow vein) it there cloudeth and darkeneth the spirits. For the *Cure* hereof see more in the Hypochondriacal affection.

V. Another is (that we cal *Uterine*) from the Womb, which is easily *Discovered* by this, that the sick complain of a pain in their left side, and a manifest pulse and beating in the back parts neer about the Diaphragm. It *ariseth* also from a Vapor proceeding either from the suppression of the Courses, or else from some putridness in the seed. For the *Cure*, see in its proper place.

VI. Another is that we term *Erotick*, as *proceeding from love*, which is either contracted from *Philtres* or Love potions; (and then there must be given, 1. *Vomitories* of the Root of *Asarum*, together with Bezoarticks, Aqua Benedicta *Rulandi*; 2. *Sudorificks*, as for instance, Treacle water, *Diaphoriticum* in acute distempers; the Appropriate remedy is the *Secundine powder*, touching which see more in *Hartman*:) Or else *from* a *Venereal* lustful appetite, & *an over great abundance of the seed*; then in this case we are to deal with those things that allay and qualifie the Veneral heat, and extinguish or (at least) diminish the seed. See more of this Nature in *Ferrandus*, in his peculiar tract.

VII. Another is that we cal *Errabunda*; which most an end useth to infest the Patient in the Month of *February*. In this case the sick persons abound, & are even overspread with Ulcers in their thighs; neither can they possibly for an hour together take their rest in any one place.

Article. V. *Of madness.*

Madness is a continual motion of the mind, with an unwonted boldness and Fierceness (yet without a feaver) arising from a fiery heat of the Spirits.

The *part affected* is the Brain, (the memory (for the most part) being stil preserved, and kept intire) and the Heart, which is (as it were) collected and straightened by the over vehement passions and affections, and a dayly and perpetual enduring of the winters cold, the heart too copiously diffusing the natural heat.

The SIGNES are, Fierceness, and so it is distinguished from melancholy; the want of a Symptomatically feaver; (in regard that there is here no putrefaction) and by this it is distinguished from a Phrensie. Unto the signs aforesaid there are likewise often-times added extream and over watchings, (for want of rest) and divers other signes, that are likewise common to a deliry or dotage.

The CAUSE is the exceeding great and boyling heat of the Spirits; unto the which it is apparent, that of necessity there ought to be conjoyned an occult, secret, and more potent cause; from the enormity and long continuance of the symptoms: But now, from whence this extraordinary heat hath its original, shal be discovered, when we come to speak of the differences.

The CURE is *difficult*, because that the affect

affect is of a long continuance, as wel by reaſon of the cauſe, (which is moſt pertinacious, and hath in it (as it were) the nature and quality of Leven) as alſo in regard of the ſick perſons, who wil by no means yeild obedience unto what is enjoyned. But there is *good hope* of a cure, if the courſes and hemorroides flow forth, if the Belly be looſe and ſolluble; if the ſymptoms be gentle and moderate; if there be a plentiful flux of the blood, out of the noſtrils, out of the greater crooked and wreathed veins of the hips, thighs &c. (the Practitioners term them *varices*) and out of the womb; if there ſweats preſent; and laſtly, if the diſtemper be turned into a kind of ſilent decipience, or (as we ſay) playing the ſimple one. It is to be *performed*, 1. by an oppoſite *diet*, in which the Patient muſt carefully avoid the drinking of wine; but by al means ſleep is to be procured, and the ſick calmed and delighted with muſick. 2. *By the removal of their cauſes that induce and generate the exceſſive heat*; of which we ſhal ſpeak further in the differences. 3, by a *mitigation* of the *ſymptoms*, and more eſpecially, the extream and over long watchings.

The *differences* are taken from the Cauſes that introduce exceſſive heat into the ſpirits.

I. One is from *Cauſes external*, as for inſtance, the extraordinary heat of the dog-days, vehement and exorbitant wrathfulneſs, drinking of hot and ſtrong wines, *Night-ſhade*, the brains of a cat and of a weaſel, wine turned by lightening, Philters or love potions, the eating of dogs and wolves; the curing of fiſtulaes and old ulcers; al which may be ſufficiently known from the relation both of the Patient, and the by-ſtanders.

Another from *Cauſes internal*; of which more in the ſecond difference.

II. Another is from *aduſt* or burnt *blood*, which is *known* by the ſigns and tokens of Plethory, redneſs of the eyes, by playing or toying, ſinging, and exceſſive dancing, &c. It *ariſeth*, ſomtimes from a hot diſtemper of the liver, and ſometimes from the ſuppreſſion of the courſes and of the hemorrohides. The *Cure* is to be accompliſhed by veneſection or opening of a vein, in the mean time not neglecting thoſe diſtempers and diſeaſes by which it is cauſed.

Another is from *black choler* accompanyed and attended with a certain accute and ſecret property; which is *known* by this in that it is perpetual if it be once lodged and hath taken up its reſidence in al the veins, or elſe at leaſt, in thoſe that are next unto the principal members; if the dotage be accompanied with raging; if the ſtrength of the ſick be extreamly impayred and weakened and in a manner diſſolved by long continued watchings; if there be withal preſent a raging and mad deſire and endeavour to bite and tear, &c. It *ariſeth* ſometimes from an extream hot ſpleen yeilding and pouring forth abundance of black choler. It is *to be cured*, 1. *by letting blood*, as wel by the opening of the left arme vein, and likewiſe the ſalvatella vein (& this letting out of the blood muſt be in the greater quanity, if the blood be blacker than ordinary; but then it ought to be more ſparing, if it be of ſomewhat a reddiſh hiew, as by the opening of the hemorrhoid, and thoſe obtorted and wreathed veins called *Varices*, (if at leaſt they apear) but the forehead vein, if the mallady be refractory and obſtinate. 2. By *preparing* the *peccant humor* by coolling and moiſtening cephalicks. For this end and purpoſe there is much commended, the oyl of champhire, one ounce, the oyl of musk, in weight one dram, and mingled wel together, and ſo adminiſtred the quantity of halfe a dram at once for a doſe; the *decoction* of that *pimpernel* that hath a purple flower. 3. by the *eduction* or drawing forth of the *ſaid humor*, by *melanagogues* (we are to underſtand hereby, medicaments having in them a vertue and property to draw forth blak choler or melancholly) more eſpecially the ſtone called *Lapis lazuli*, and *honey helleborat*; of which laſt *Petræus* hath written at large in his *Noſology*, or treatiſe of diſeaſes. 4, By ſtrengthening the *heart* and brain with the confection *Alkermes*, and de *hyacintho*. 5. *By the uſe of topical remedies*; in the claſſis and number of which Cauteries applied unto the coronal future have their due and proper place; opening of the *cranium* or skul with the trepan; a *Lee* made with *Laurel berries, and roots of the true black Hellebor*, with which while it is yet a little warme the head ought to be waſhed, &c. Thoſe remedies that are ſpecifical, are *Liquor of mans blood*, with the extract of *Lapis Lazuli*; *Saturnine Cryſtal* adminiſtred with the greateſt caution that may be; the *blood of an aſſe* taken out of the veins behind the Ears; of which *Hartman* hath written ſufficiently, &c. ſee Likewiſe hereof *Rulandus*, in his medicinal Cures.

III. Another is that, which is ſuch Eſſentially; unto the which al thoſe things before mentioned

mentioned may be attributed.

IIII. Another is by *Consent*, especially of the *womb*; from whence that kind of fury that we cal *utrine* hath its original and denomination; of which more in its proper place.

Article. VI. *Of Rabies, or raging Madness.*

Raging madness is a deliry (or doting) produced from some certain peculiar poyson bread in any living creature, and communicated unto a man, with a strong and vehement abhorring of al things that are liquid, but more especially, water.

The *Animals* (or living Creatuers aforesaid) that communicate this poyson unto man, are, the wolfe, the cat, and the dog; and cheifly this last.

The SIGNES are, (in the *begining* thereof) anger soon moved and a continual inclynation thereunto; a complaning of the Air, as if it were Southerly and moist; little or no desire to drink; a great desire to have candles lighted up in the day time; and lastly, a vertigo, lightness, giddiness, or swimming of the head. The signs of this distemper *confirmed*, are these; a distension of the members, but this is not continual; foaming or froathing at the mouth, frowning fierce looks, spitting and spawling upon those that are nigh, a barking like as of dogs, an abhorring of, and flying from water, by reason of a singular and peculiar antipathy and dislike; from whence this affect is termed (and that not improperly) the Hydrophoby.

The CAUSE is *poyson*, that is generated in a living creature, from som peculiar inclination it hath and then comunicated unto man by breathing upon him, kissing, spit and biting. In some it is generated (if we may beleive *Donatus*) from an extream terror; and in others, from touching the dog-tree (which they cal *Cornus*) or by the touch of bloodwort, or else, the *Sorb* or service tree. But now this *deliry is produced* in some persons sooner, within twenty dayes at the utmost; but in others more slowly; yea even the twelfthth year after. And this commeth to pass, either by reason of the variety of the part that is bitten; (for some of them are more noble, others againe are less noble) or else, by means of the diet that is used, which possibly may much weaken and abate the strength of the poyson; or by reason of the diversity of patients; or else, last of al, from the difference and Dissimilitude of Countries, times, and seasons.

There may be some *good hope* of a CURE, if the wound or hurt reacheth not unto any nerve, vein, or Arterie; and if it be not very deep. But there is smal, or *no hope*, if there be present a fear of water; and if sighing or sobbing happen thereupon. But if there be any cure, it then *consisteth*. I. in *preservation*, lest that the poyson penetrate into the body; and there occure and take place. 1. A *Ligature* upon the part afflicted; but if the part wil not wel endure it, then a laying upon it those things that have in them either an intercepting, or astringent quallity. 2. *Cupping-glasses*, with good store of flame, and with scarification, if the wound be little; but without, if the hurt be great, and the wound large, 3. *Enlarging* and widening the *part* if the wound be over narrow, that so the poyson may the better flow from the part affected. 4. *Attraction*, by Medicaments that are vehemently attractive and drawing, or else by actual Cauteries. II. The Cure consisteth in that way and *Method of Curing that is properly so called*; where those Remedies that have their place, are, 1. *Purgation* by Hellebor. 2. Appropriate *Sudorificks*, but cheifly, the *simple* or single *Mixture*. 3. The strongest sort of *Vesicatories* (we mean here by al such Remedies as raise and cause Blysters) 4. *Antidotes*; and these are to be administred and given in a double quantity and proportion to what they are wont to be in other ordinary cases, &c.

Chap. 5. *Of the Symptomes of more of the Internal Senses.*

Article, I. *Of the Waking Coma.*

THe Symptomes that infest and annoy many of the internal senses at once and together, and are, the *Waking Coma* (as they cal it) and the *Lethargy*.

The waking Coma is a propension to sleep, and yet withal an utter disability thereunto, arising from Narcotick (or dul sleepy) Vapors, that induce and cause a drowsie and sleepy disposition, and withal trouble and disquiet the mind.

The

The SIGNS are, a Connivence or winking with the Eyes, and yet withal a frequent opening alſo of the Eyes; a mopiſh or doting kind of diſcourſe in the Patient; and likewiſe an inordinate motion of the hands and thighs.

The CAUSE is conjectured to be Narcotick Vapors, unto the which there is adjoyned ſomthing that brings along with it a neceſſity of waking; and ſo doth a Phrenſie, a Malignant Feaver, &c. It ſomtimes alſo proceedeth from an extream debility of the ſtrength and powers of the body, contracted either from ſome vehement Diſeaſes grievous and intolerable pains, and an exceſſive immoderate Evacuation; and then in this caſe it is very dangerous, if not deadly.

The CURE is very *difficult*, in regard that the affect is eaſily changed into the Lethargy or Phrenſie. It is *very doubtful*, if the parties ſpeech be hindered: if while they breath a murmuring noiſe be heard in the throat; if the ſick perſons cannot ſwallow down what he drinketh without much ado; and laſtly, if a thin Humor diſtil from out of the Noſtrils. It is *Performed* (if there be any Cure at al to be expected) by Revulſion, and the Evacuation of the Matter, from which it proceedeth, and hath its firſt riſe and original, &c.

Article, II. *Of a Lethargy.*

A Lethargy is an inſatiable propenſion to ſleep, together with a gentle Feaver, forgetfulneſs, and a dul ſloathfulneſs or Laxineſs; ariſing from a Pituitous or flegmy kind of blood putrifying in the hinder nooks, windings, and Cels of the brain.

The *parts affected* are the Poſterior or hinder ventricles and Cels of the brain; in regard that in this diſtemper the Memory is that which is cheifly hurt.

The SIGNS are, *an inſatiable deſire after ſleep*, as being never ſatisfied therewith; by reaſon that the brain through its over moiſtneſs cannot poſſibly be expanded; and becauſe likewiſe that the Animal ſpirits are as it were bound and lock'd up, by unwonted extraordinary obſtructions. Another ſign is, a mild *and gentle Feaver*, in regard that the putrifying Humor is not extreamly ſharp and fretting, and that the heat is allayed and qualifyed by its Contrary; but then this Feaver is *Continual*, in regard that the heat (being as it were to boyl it up) is continued, and in a manner perpetual, and ever more, from day to day, returning about the beginning of the Night. Another ſign is *Oblivion* or forgetfulneſs, becauſe that the hinder part of the brain is hurt. Another, *ſlowneſs of breathing*, in regard the Nerves of the Thorax, breaſt or Cheſt, are affected. Another, a *Gough*, by reaſon of the Flegms Defluxion into the Larinx, or entrance of the wide rough Artery, (we commonly cal it the winde-Pipe.) Another ſign is a Turbed, That is to ſay, a thick, pudled, and troubled *Urin*, in regard that the Crude Humors are agitated and driven about by the heat, and yet are not ſeparated. Another ſign is, *great Pulſes*, by reaſon of the Feaver that accompanyeth it; but then ſuch as are not very quick and frequent, but *ſlow*, by reaſon of the imbecillity of the Natural ſtrength and powers of the Body. *It differeth* from the *Catalepſie*, by the winking and ſhutting cloſe of the Eyes; from *Carus*, by the Feaver that is preſent herewith; from the *Apoplexy*, becauſe it doth not ſuddenly, and al at once invade the party; neither doth it deprive of al kind of motion: It differeth from the *Hyſterical Paſſion* (we term this affect the fits of the Mother) in that the Lethargical perſons are able to ſpeak and make anſwer (the others not ſo) and withal they are affected with a moderate and gentle Feaver: and laſtly it differeth from *Coma*, by that exceſſive and inſatiable deſire of ſleep (of the which they have never enough) and out of which they are no ſooner rouzed & awakened, but they immediatly fal back again thereinto.

The CAUSE is Flegm or ſnivel, rotting and putrifying in the hinder parts, (we uſually cal them the ventricles, nooks, and Cels) of the Brain. *Where* it is to be noted as *Obſervable*, 1. That ſomtimes the ſaid Flegm is diffuſed al about the brain, and the *Meninges*, and that then it inducеth a ſwelling or Tumor, that is not very great, nor very hard: but that ſomtimes likewiſe it is even ſtuffed and impacted into their very ſubſtance, and becomming altogether one with them, and cauſing them to riſe and ſwel up like unto a ſpunge. 2. That in old Age (for the moſt part) a pituitous of flegmy blood is *carried into* the aforeſaid parts; and this ill blood hath its original from Narcotick Crudities. Now the reaſon why *it Putrifieth*, proceedeth from the retention of thoſe Vapors that ought to be diſperſed and driven forth.

CURE there is *none* for it, if it be ſuch as is rightly and properly ſo called; if the ſtrength &

powers

powers be day after day wasted and weakened, if there be an increase of the cold sweat of the head; and lastly, if it end in a *Sphacelus*. The Cure is *very doubtful*, if it happen unto one that is young, and in the hot Summer time; if the Urins that are made are become cleer and thin; if the Excrements that are thrust forth by the belly be many, and also liquid; in regard that this proceedeth from the resolution, weakness, and wasting of Nature: if there happen withal a kind of trembling, because that this imports either great plenty of matter, or else the resolution of Nature; and lastly, if a phrensie chance to follow immediatly upon it. There is *some* good *Hope* of a Cure, if so be the seventh day be over past and gone without any sensible hurt and prejudice unto the party; if the Animal actions be not greatly impaired; if the sick persons find themselves the better, after the expulsion of the matter unto the Nerves; if the matter when it is putrified hath an Evacuation by the Ears or Nostrils; and lastly, if there happen an imposthumation behind the Ears. The Cure is to *be effected*. 1. By *Revulsion*, which is performed, 1. by *Venesection*, (& this likewise must be maturely, timely, and seasonably administred) after the putting up of a Clyster; unto which said Venesection, (if there be want of strength in the Patient to undergo the loss of much blood) may be added as subservient thereunto, Ligatures, Leeches, and Cupping-glasses affixed unto the back and shoulders. 2. By *Purgation*, instituted by the *milder* and gentler sort of Medicaments, by reason of the Feaver; to wit, *Cholagogues* in the beginning, and *Flegmagogues* in the progress. But the Remedies ought to be *stronger* and more operative, if the Feaver be remiss and gentle, and the matter urgent: the said Purgation is to be *corrected* with *Castoreum*, which is here very proper, as being appropriate unto this distemper: but we must not by any means omit the making use of sharper and *stronger* Clysters, if there be present a greater and more intense Feaver. 2. By *Repulsion* or driving back, which is to be administred after blood-letting, by the gentler sort of Medicaments, applied unto the Coronal Suture; not neglecting the putting in practise likewise of Revulsion. And for this purpose *Oxymel Scilliticum* (or with squils) is especially good. 3. by *Preparing of the matter*, if the Disease wil allow but of so much time, and truce; but here the *Arabian Stœchas* is carefully to be avoyded, if the Feaver be over great and intense. 4. By a *Particular Evacuation* of the *Brain*; where we are to take notice, that *Castoreum* is ever more to be added, and mingled therewithal; and that *Sternutatories* ought not to be made use of from the very first beginning of the distemper; neither are we continually to persist in the use of them, in regard that they fil the Head: and then again we must not forget that *Vesicatories* are to be imposed behind the Ears, and likewise applied unto the Crown of the Head, or to the Coronal suture. 5. By Corroborating and strengthening of the Head by its appropriate Remedies. 6. By a *Diet*, in the which (at the beginning or first entrance thereinto) the food that the Patient takes, ought to be but little, and thin of quality and substance, but especially such as affordeth a good Juyce and Nutriment; and withal the sleep ought to be very sparing, &c.

It is *divided* in a two-fold manner.

I. One is that which is *Legitime*, and properly so called; of which we hitherunto been speaking. Another is that we term *Nothus*; which is altogether without a Feaver, and is (indeed) nothing else but a profound and deep sleep, and as it were of a middle Nature betwixt *Caros* and the waking Coma.

II. Another there is that is such *by its own Essence*; touching which, al before said is to be taken and understood. Another is *by consent*; there being a certain matter communicated and denived unto the Brain, by reason of the suppression of the courses, or of the Hemorrhoids; or else by means of some other Disease.

Chap. 6. *Of the Symptomes of the Animal Motion.*

Article, I. *Of Lassitude, or Litherness.*

THose Symptomes that offend and hurt the Animal Motion, are, *Lassitude*, *Unquietness* or Restlesness, a *Vehement cold* and *Stifness*, a *Trembling*, a *Palsie*, and a *Convulsion*.

A Lassitude is a certain unaptness and unfitness (together with a certain kind of pain) unto the exercise of the Animal motion, which ought to have been performed freely and in a natural way.

As for the signs, the relation of the sick party wil sufficiently acquaint us with them.

The CURE is, whatsoever doth burthen, weary, and make Lither the Muscles that are the

the instruments of the Animal Motion; whether it be any thing External or Internal.

The CURE is accomplished by the removal of the Causes, and likewise by the cherishing and comforting of the Muscles.

It is *divided* into six *Species* or kinds.

I. One is that that is *not Spontaneous* or voluntary: unto which, that we term *Exsiccative*, doth appertain. Another is *Spontaneous* or voluntary; which (in regard that it signifieth and manifestly declareth that Humors superabound in the body) may therefore not unfitly be said to presage Diseases; and if it persevere and continue after the cessation of the Feaver, it signifieth a certainty, or at least an extream danger of falling back unto a relapse. And unto this kind belongeth that we cal *Gracility Ulcerous, tensive, Phlegmonodes*, and *Ostocopos*.

II. Another is that which we cal *Exsiccative*, which proceedeth from an extream and over great motion of the body. But in this there is no danger at al, unless it chance to befal a Cacochymical body. It is cured, I. By rest, especially that rest that is taken in sleep, because that then the members are placed in a middle kind of frame and posture, upon the Relaxation of the Muscles. II. By Exercise, if it be more moderate than the former, in regard that it discusseth and disperseth those Humors that are moved up and down throughout the Cavity of the whol body.

III. Another is that we term a Lassitude of *Gracility*, which hath accompanying it no grievous or disquieting sense of pain. It ariseth from a Consumption of the flesh and Fat of the muscles. It followeth upon either Chronical or else (it may be) after some acute Diseases. It is to *be Cured* by a Convenient Diet.

IV. Another is *ulcerous*; which is *known* by the signs and tokens of a cholerick cacochymy, by a sensible pricking and shooting throughout the whol body (from whence indeed it taketh its name and denomination) and by a kind of extream and vehement stifness that ensueth thereupon. It *hath its Original* from some sharp and biting (either) Humor or Vapor; or else from heat diffused and dispersed to and fro, or else such as is wholly dissolved, wasted, and consumed by excessive and inordinate exercise. *It is Cured by Purgation*, if it be so that the matter fix and stick in the more profound and deep parts; but by frictions, and motion, if the matter be only in the Superficies.

V. Another is that we cal *Tensive*; which is *known* by a manifest and sensible extension or stretching out in the Tendons of the muscles, the Fibres, and Nerves. It *ariseth* from a Plethory. It is to be Cured by frictions or rubbings with sweet Oyl, and by baths of sweet Water.

VI. Another is that we cal *Phlegmonodes*, which is known by a sense of Contusion and Contraction, and (as it were) an inflamation of those muscles especially which have their place and situation under the Skin. It *hath its rise*, either from a *great abundance of blood* fallen forth of the Veins unto the muscles, or else such as is attracted and drawn together by overmuch and violent exercise; and then the Cure is to be performed by Venesection or blood-letting: or otherwise it ariseth from the Humors that are in the manner and by the means aforesaid drawn and led along thither; and in this case there wil be great need of Purgation.

VII. The last is that we cal *Ostocopos*, which is *known* by the extension and stretching out of the interior Nerves adhering unto the bones of the Tendons, and encompassing and wrapping about the bones of the Membranes. *It proceedeth* from black choler or Melancholy seizing upon and possessing those Membranes. It usually concurreth and sheweth it self together with the Scurvy, Quartane Feavers, and the French Disease. The *Cure* ought primarily and chiefly to be directed and instituted according to the Cure of the aforesaid Diseases.

Article, II. *Of Restlesness, or Unquietness.*

Restlesness or Unquietness is a frequent various shaking to and fro of the whol body and the several members thereof, arising from matter molesting and disquieting those parts that are capable of suffering.

There need no SIGNS; for the Affect is apparent enough to the very view.

The CAUSE is a sharp matter, whether it be a humor, or a hot Vapor.

The CURE must be directed, and so ordered that it look toward the said matter, accordingly as it appeareth in the following differences thereof.

It is divided into *Critical* and *Symptomatical*.

The *Critical* consisteth in that suddain and unexpected perturbation of the Humor; and from whence there is no danger to be feared.

That we cal *Symptomatical*, is that which happeneth in general; and it containeth under it, I. That which we term *Stomachical*, which is *known* by a kind of Nauseousness in the stomack, somtimes without, but most commonly with a vomiting, and likewise a pain of the stomach. It *ariseth* either from the *Humors* pulling and twinging the mouth of the stomack, &c. (as it were) soaked and drunk up into the Cotes or Tunicles thereof, (in which case purges that abate and lessen the acrimonious quality have their proper place:) or else *from food* unseasonably taken; and here we are to help and succour the Patient by vomiting of him. II. That that we term *Inflamatory*, which proceedeth from the Inflamation of some one of the Bowels. III. That which we cal *Febrilis*, that appeareth in Malignant Feavers, and is very dangerous, if it be attended with the imbecility of the natural strength and powers of the body. In the *Cure* we ought to have respect unto the several species or kinds of the Disease.

Article, III. *Of Rigor, or an Extream Stifness.*

The Rigor or unnatural vehement stifness is a vibration, shaking, and quavering of the Muscles of the whol body, conjoyned with Refrigeration, and a certain pain, arising from somthing that doth molest, by a suddain and unlookt for twinging and pulling of the sensible parts throughout the whol Circumference of the body; and likewise by Irritating and stirring up the expulsive faculty.

The *Part affected* is the whol body, or at least, the Muscles of the same, whether they suffer together more inwardly, or not.

There is no need of *Signs*; the Refrigeration that happeneth herein, either it is of the Skin alone, by reason of a pain excited and stirred up by the acrimony and sharpness of an humor; or else it is also of the Muscles; whether it proceed from the Diffusion of the Humor, or otherwise from the Inflamation of Bowels.

The CAUSE is somthing that is grievous and burthensom; whether it be collected and contained in the very Muscles themselves; or else be transmitted thither from some other place. But now then the said matter is sharp, corroding and biting, much of it in quantity, and such as is swiftly moved and carryed up and down from place to place. And this happeneth most especially in Feavers.

The CURE is accomplished by the removal and taking away of the causes. The Disease, (if it cease not upon the use of an Evacuation) is very evil and dangerous; and so likewise if it be attended and accompanied with a Consumption, and wasting of the whol body.

It is cheifly and especially *divided* in a threefold manner.

I. One kind (or species) hereof is from *things External*; as for instance, a cold Air, or an External heat diffusing and dissipating the Excrements that before were at rest, and were quier, without any molestation; sprinkling of cold water, upon the body; the falling of a spark of fire upon the skin, &c. The *Cure* here hath nothing in it worthy of Observation. Another there is that proceedeth from *Causes Internal*; to wit, a Cholerick humor, a salt Flegm, Melancholy, black choler, and acrimonious sharp Vapor. The Cure hath respect unto the several sorts of the Disease. Al the kinds of them are somtimes *to be Mitigated* with the Oyl of *Rue*, of *Bay-berries*, of *Castor*, and of the *several sorts of Pepper*, together with *Treacle* and *Mithridate*.

II. Another is *vehement with a continual feaver*: and then, if it chance to be in the beginning, it betokeneth an inflamation of some bowel; but if in the end, it sheweth, either that the feaverish matter is moved out of the Veins, or that the Inflamation tendeth to a Suppuration: Another is but *little*, and not much considerable, being such as only giveth notice of Feavers to follow; of which see further in these Chapters wherein they are particularly treated of.

III. Another is *Periodical*, which afflicteth the party but now and then, and by fitts at certain seasons. And this is the best and the most hopeful species of this Disease, if it happen to appear on the Critical day; if upon its appearance the body waxeth hot; or else that any Evacuation of excrements follow thereupon. Another is *Symptomatical*, when as the matter is thrust forth into the external parts, and the Circumference of the body, without any *Crisis* at al; and this is that of which we are now speaking.

Article,

Article, IV. *Of Tremor, or Trembling.*

This Trembling is a depravation of the Voluntary motion, (by reason of the which the Member elevated and lift up cannot be kept in its own proper situation) arising from the debility and weakness of the faculty of motion.

There is no need of SIGNS: *It Differeth* from a *Convulsion*, because in this latter the part is contracted, and so kept; from a *Palsie*, because that in this the part is seldom or never lifted up, or at least very slowly; from a *Palpitation*, in regard that in this not the whol Member, but the flesh, and especially the Skin is moved; and the member unmoved, one while falleth down, and again another while is distended and stretched forth; and lastly, it differeth from the *Rigor* or stifness aforesaid, in regard that it is without any pain.

The CAUSE is a weakness of the moving faculty, which happeneth either by a default in the Animal spirits, or the Nerves.

CURE there is *none*, if it befal those persons that are in yeers, by reason of the extream imbecillity and weakness of the spirits and the brain; if it happen in a vehement Phrensie, or Melancholy; for then it is caused, either by means of the exsiccation or overgreat drying of the Nerves by a Feaver, or else by reason of a corrupt and depraved quality: if it be hereditary, or that it proceed from some fault and disorder in point of diet, especially in such that have the Organs of the Animal faculty extreamly weakened; if the sick person Shrink and Start when he is toucht; in acute Feavers, because that the Nerves are either exsiccated and over dried, or else are pulled and twinged by some depraved and vitiated matter, upon which there followeth a Convulsion. The Cure is more *facile* and easie, if it proceed from Causes that are evident. It is *doubtful* and *difficult*, if it happen on the left side, in regard that then the innat heat of that part is the more easily impaired and made to decay; if it turn into a Convulsion, because then the peccant matter assumeth unto it self and worse and more offensive quality; if it happen to be in a burning Feaver, and that a doting follow thereupon; for then some great and grievous Disease succeedeth, and the strength, and powers of the body are wasted and consumed; if the sick party Shrink and Start when he is toucht, for then the Nerves are become over moystened by the peccant Humor. But when we set about the Cure, (and that there be any hopes of effecting it) it is then to be *instituted* and prosecuted according to the Nature and disposition of the several Causes and differences, touching which we purpose to speak further in the sequel.

The *Differences* are al of them taken from the Causes introducing the same.

I. One is from *External Causes*, especially such as are Malignant and Narcotick, as (to instance) *Quick-Silver*, Poysons, opiates, *Henbane*, the Retention of the Secundines or After-birth, and the suppression of the blood after delivery; al which are to be removed. *Another* is from *Causes Internal*, of which we shal speak more in the Second Difference.

II. Another is *from the Scarcity and want of Spirits*; which either are not generated and bred in a due and fitting sufficiency, by reason of a cold distemper of the brain, (and in this case, in the Cure thereof the Nature of the Disease it self ought heedfully to be regarded) or else after they are generated they come to be dissipated, wasted, and consumed, by an excessive, heat an over great Evacuation, and some long continued tedious Diseases: and here we are to deal and do our endeavour by prescribing a fit and convenient Diet.

Another there is from some *faults* and faylings in the *Nerves* themselves; which may be, 1. A Cold and moist *Distemper* of the *brain*; and there are some signs present of a misaffected brain. The Cure must turn towards, and Eye the Distemper. For those Remedies that are *taken inwardly*, these following are cheifly commended, Viz. The Essence of Balm, and stœchas of Arabia. Among the Medicaments that are to be externally administred, these are highly approved of, to wit, the Oyl of the flowers of Trifoyl or the three leaved Grass, *vulpinum*, or the oyl of a fox, the oyl of pepper the Oyl of castor, &c. 2. *A Plethory* when some wonted Evacuation is suppressed; & then in this case let a Vein be opened. 3. An *Obstruction* of those same Nerves, such as we term partial ones, or a stoppage of them but in part, whether it proceed from thick and gross Humors, or else from Gluttony and sur-charging the stomach, and other such like Causes. See further hereof in the subsequent Cure of the Palsie.

Article, V. *Of the Palsie.*

The Palsie is a spautaneous and voluntary abolition of motion in the parts, (without any the least hurt of the Reason,) arising from a defect and want of the Animal spirits, through some fault and errour in the Nerves.

There is here no need of SIGNS; the motion for the most part perisheth, the sense and feeling stil remayning, there is likewise a kind of softness and tenderness in the part affected; a coldness also, a weak pulse, &c.

The CAUSE is a defect and fayling of the Animal spirits, which happeneth by some fault of the Nerves.

There is *no* CURE at al to be expected, if it chance to be from an extream and forcible Relaxation or Loosing of the *Vertebræ*, in regard that then the Nerves are greatly crushed together and very much bruised, insomuch that an inflamation followeth thereupon; if it proceed from an incision or cutting of some one of the greater Nerves, or the the spinal Marrow, because there is then no Hope of a Coalition or closing together again of the incision. The Cure is likewise exceeding *Difficult* and hard to be effected, if it happen unto aged people, in regard that it denoteth an imbicillity of the heat; if the member be extenuated, and the natural vegetative heat thereof be changed and altered; especially if the eye on that side be impaired, because it argueth then that the heat is wel nigh extinguished, if there be many of the nerves and muscles affected; if it succeed and follow upon an Appoplexy, in regard that then the cause is over vehement. But the Cure is *more easie*, if the resolution be in the thighes or feet, because that in those parts the nature and constitution of the nerves is dryer than elsewhere; if the member resolved and loosened be actually hot; and lastly; if a trembling, or a feaver follow upon it. It is to be instituted and ordayned, according to the nature of the causes, and the differences.

The *differences* of a palsy are very various.

I. One is *Universal*, in the which either the whole body (the head alone excepted) is seized upon, or at least, the one halfe thereof or one side of it. And then, if the *Face* be affected, the brain also, (together with the spinal marrow) is affected: *But if al the parts beneath the face*, then the begining and first entrance into the spinal marrow (which we cal the marrow of the back bone) is very far amiss in its transverse situation: but if the affect surprise only *the one half* of the body, one side then only of the Said spinal marrow is likewise affected, and becometh faulty.

Another is *particular*, when alone some one certain part sufferech. And then, if the *Arms* and hands be deprived of their motion, then the nerves that proceed forth from the *vertebre* of the hinder part of the neck, offend and are faulty. If the *Feet*, then those nerves that are in the *vertebræ* of the Loyns, and the *Os sacrum* or channel bone. If the *eyes*, then the second pair of nerves is affected, If the *Tongue*, then the seventh payr of the nerves is affected. And lastly if the voice fail, then those nerves that are called *recurrentis*, they only are affected and do suffer.

II. Another difference there is, arising from a distemper in the *nerves* themselves, by reason of phlegmy and cold humors, that *relax* or *loosen* and dissolve *their* tone: and these for the most part descend from the head. These humors may be *known* and more fully understood what they are, out of the Chapter touching the distemper of the head. The *Cure* is to be wrought, 1. by a gentle evacuation and imploying of the first and most principal passages, least that otherwise the preparatives draw the crude humors into the stomach; (and here *vomiting* procured and excited by the use of *Crato* his vomitary made of the *Juyce of the reddish* in the which *black hellebor* hath bin steeped and infused, hath its place if the stomach be stuffed ful of flegm) but then if the matter be in its flux and motion, the evacuation ought to be so much the *stronger*. 2. by a *preparing* of the matter, more than once, by Cephalick medicaments; among which *Iva Arthetica*, *primrose flowers*, *the Flowers of Lilies of the Vally*, are the best that are now adayes in use. 3. by purging, with mechoacan, or the *Pils* so much used by *Solanander* and *Mathiolus*. 4. by *exciting* and *provoking* of sweats with the *Hidrotick* of Quercetan, and the sudorifick of St. Ambrose; unto which there must be added, *Guajacum*, *china*, *Treacle*, *Bezoardicum Lunare*; together with other apropriate remedies; al which are to be followed and attended with frictions of the neck or the *spina dorsi* with onions, and the new fresh root of the flowerdeluce. 5. by a particular *evacuation* of the brain, by errhines, Apophlegmatisms, &c. 6. *by the application of Topical* remedies; where have their place, frictions, rubbings and chafings with the *water of ants*, and the watter of sage, with *tobacco leaves*

leaves infused in Malmesey, Bathes with *formicetes*, Rubifications (or rubbing the part til it become red) with *green Nettels* and other suchlike; inunctions with the unguent of *vipers*, the unguent likewise of the *several sorts of pepper*, the Unguent of *Castor*, the *grease* of the *wild Cat*, mans fat, &c. *Natural* or *Artificial hot baths*; touching which se further in *Heurnius* his method. 7. by a *diet that is hot and dry*; concerning which consult the Practitioners in Physick.

Another is from the *straightness* or narrowness of the *Nerves*; which is caused, 1. By an *obstruction*, proceeding from a pituitous flegmy humor, and other things that are subservient hereunto, and conducing unto the purpose aforesaid. Then the cure hath regard unto the Cause; touching which we have spoken sufficiently above, 2. a *Constipation* from some tumor or swelling, that hath its first rise in the substance of the spinal marrow, or of some nerve. 3. *Compression*, and that either from some external cause, or else from a Tumor, &c.

III. Another is from those *Causes* that dissolve or *make a solution of unity in the nerves*, in the number of which there is, 1. a *Contusion*, fal, or blow. And then a vein is to be opened lest there should happen an afflux unto the contused or bruised part. Astringents together with discussives are likewise to be applied and layed upon the part affected, unless (haply) there be present an inflamation. 2. a *dissection*; and for this there is no remedy at al to be had, 3. a *relaxation* (or loosening) of the *vertebræ* of the Back, suddenly caused, of the which sufficient hath been spoken in the second Book.

Another is from *things narcotick*, as for examples, a touching of the sea fish *Torpido*, quick-silver, and the immoderate unseasonable drinking of wine, which rendereth the spirits extreamly stupid and dul: and here in the cure whereof there ought to be a special regard had unto the nature and quallity of the Cause.

IIII. Another is *Colical*, when a humor from the intestines is moved, not so much unto the begining of the orifice or first enterance of the nerves, as unto the very muscles and tendons. The *Cause* hereof is a thin humor, that is both chollerick, and wheyish. In the *Cure* we must deal cheifly and principaly by clisters, that so the perverse motion of nature may be inverted. A vein is to be opened, if there be present a Plethory and over great abundance of pure and good blood. We ought then to purge with gentle purgers (as we terme it) by an *Epicrasis* or an often reiterated evacuation, and drawing forth of the peccant matter, leisurely and by degrees, some now, some then, and not al at once. Let sudorificks then follow, administred in primrose water, and the water of Lilleyes of the vally. The spirit of *Niter* is also of excellent use in this case.

Another is that which we terme *Scorbutick*; touching which see more in the Scurvy.

Another is that we cal *Hysterical*; of which also we may see more in its own proper place.

Article. VI. *Of a Spasm, or convulsion.*

A Spasm is an involuntary, perpetual, and painful Retraction (or drawing back) of the Muscles towards the place of their original and first beginning, arising from the abbreviation and shortening of the nervous (or sinewy) parts; which is evermore attended and followed with a Rigor or Extream stifness, and a depravation of the figure, shape, and symmetry of the foresaid parts.

The *part affected* is a Muscle, and especially a Tendon.

The SIGNES are apparent of themselves: the Muscles are in such manner drawn back, that the parties are altogether immovable toward, and unto the contrary.

The CAUSE is, either a certain matter pulling and twinging the expulsive facculty of the parts; or else some disease voilently stretching out the nervous parts: and this sticketh fast either in the beginning and sourse of the nerves (to wit, the Brain) or in the Spinal marrow, or else in some one peculiar nerve.

There is hardly any CURE to be had, or hoped for, if it be from hellebore; if it arise and appear after a Phrensy; if it proceed from a wound, especially in the brain, by reason of a filthy stinking and corrupt matter pulling and twinging the nerves. The Cure is *very difficult* (although not altogether without hopes) if those parts that are situate neer unto the brain be affected, and suffer; if it happen primarily by the consent of some nerve, in regard that then the sick person cannot possibly hold out and endure by reason of the vehemency of the Symptoms; if it arise from an abundant flux of blood; if it follow upon the monthly Courses in women; if it attend and follow upon feavers; or if it chance to be accompanyed with vehement and accute pains about the bowels or intrals. It is *more easie*, if those parts only

are

are surprized and siezed upon that are more remote from the brain, and consequently the less noble and considerable; if it be by the consent of the Brain, unless the affect that the brain lyeth and laboureth under, be pertinatious, obstinate, and unyielding. The Cure ought therefore to *be Instituted*, according to the Nature and disposition of the Causes; of which more fully in the Differences.

The *Differences* of a Spasm are very many and Various.

I. One is *Universal*, which affecteth the whol body. The *Cause* whereof, either, *It is in the Brain*, and then together with the body, the Muscles likewise of the Face are also drawn and pulled together, and suffer a Convulsion, or else it is in the *Original and beginning* of *the Spinal Marrow*, from whence it happeneth that the Muscles that move the Head and the spinal Marrow are retracted and drawn back. And then, either the body (with the Neck and Head) is drawn to the inner parts, (from whence ariseth that we term *Emprosthotonos*:) or else the twelve Muscles that extend the Head being affected, the aforesaid parts are drawn backward, (from whence is that we cal *Opisthotonos*:) or otherwise the Muscles and Nerves (as wel the anterior as the posterior) being al of them affected, the whol body remayneth altogether inflexible and unmoveable: from whence ariseth that we cal *Tetanos*, with the which whosoever are affected, either they die within four daies; or else if they pass and out-live these, they then escape and recover. Another is *Particular*, of the Eye, Mouth, &c. Of which we shal see further in the proper place.

II. Another is from *Replexion*; which dilateth the breadth of the Nerves, and diminisheth the Longitude thereof. *It is known* by the foregoing of the Causes, a sudden invasion and surprisal without any evident and manifest Cause, and exhasting, together with a Flegmatick habit and temperament. *It ariseth*, I. From the *Affluxe* of a *Pituitous* and Flegmatick *humor* into the Nerves, according to their Tunicles (or little Cotes) and as they are essential constituting parts of the Muscles, and instruments of the motive operation. Then there went before it such a like kind of Diet, and the monthly Courses, Hemorrhoides, or other wonted Evacuations are suppressed. In the *Cure*, 1. We must attenuate and Cut the peccant matter by a timely administring of a Clyster. In the next place, those things that are highly commended and approved of, are, the *Treacle* of *Andramachus*, the *Water* or the *spirit of Juniper*, and the *Balsam* of *Quercetan*. 2. We ought to Evacuate oftentimes with the milder and gentler sort of Medicaments; the stronger sort of them pour out, and quite expel the matter. 3. A Revulsion must be made by frictions, Gargarisms, Cupping-Glasses, &c. 4. A Discussion of the offending matter must be wrought with the *Oyl of Castor* of *Euphorbium Turpentine distilled*, the *Oyl* of *Nutmeggs*, and the *Hot Baths* of *Sulphur*. 5. In the Diet that is used there must be no kind of Wine drunk. II. It proceedeth from an *Inflamation of the Nervous parts*; and then there is present a Plethory: a fal, or a blow, or somthing else that was violent, long continued and acute pains in the Nervous parts, vehement anger, and passions of the mind, &c. had their precedence. The afflux of blood hotter than ordinary is in great part the Cause hereof. The Cure is to be directed, and to look towards the Inflamation. III. From extream windinesses: and then the Causes thereof, went before and it soon passeth away, & is gone. *To Discuß*, *Vervein* and *Mother-wort*, imposed upon the Neck, are very available. 4. It happeneth from the *wounding* or *pricking* of a *Nerve*, whether the said wound and hurt be simple, or poysonous; but of this kind of spasm we have treated before in the second Book.

Another is from *Inanition*, or extream emptinels, in which the Nerves are rendered and made shorter by reason of the exsiccation and sudden drying up of the Native Rudical Humidity. *It is known* from hence, that it maketh its approach sensibly and by degrees, with a diminution of the member. *It ariseth* from Causes, that do either excessively evacuate, such as are, frequent and much bleeding at the Nose, sweats, and purgations with Hellebore; or else they vehemently heat, and dry up the radical Moysture; and such are, Inflamations, watchings, hard labor and over working, the drinking of much wine, immoderate and excessive venery, a long lasting pain, the Hectick Feaver, and lastly, Cauteries or Vesicatories over frequently applied unto the Nervous parts. It is to *be Cured*: 1. By a moystening *Diet*. 2. By Medicaments that are *Analeptical* or restorative, and moystening; and such are the urguents *de Ansere & Cata assatis*, (that is to say, of a Goose and a Catt rosted) and baths made of Oyl; the *fattening* water of *Ferdinand*, (in his

his third Book, and the Chapter touching an Hectick Feaver) made of *swines Blood*. Morsels of the Flesh of the *Tortoise*, or of *Crawfish*. The Magisterial of *Hyacinth* is specifical.

Another is that we cal *Phusodes*, which hath its original from a gross and thick spirit or Vapor, (excited by Crudities,) that filleth out the spaces of the Muscles, and distendeth them with a grievous pain. It endureth so long as until the Muscle be relaxed: it is quite removed and taken away by frictions, and rubbing and chafing of the parts affected; or else by annoynting it with *Treacle*, or *Juniper water*.

Another is *Illegitimate*, (as we term it) which proceedeth from the exstimulation, goading (as I may so say) and pricking forward of the Nervous parts by some painful affect, but yet without a perpetual extension and stretching forth of the said parts; & for the most part it happeneth by consent of the Orifice of the Stomach, or of the Womb. The aforesaid grievous and painful affect is either from some distemper, or else from the solution of continuity.

Chap. 7. *Of those Symptomes that hurt the Internal senses, the Reason and Motion, together with the External Senses.*

Article, I. *Of Incubus, or the Night-Hag, and Catalepsis.*

THe Symptoms that hurt the Internal senses, the Reason and motion, together with the senses External, are *Incubus* or the Night-Mare (as we usually term it) *Catalepsis*, (we commonly cal it a Taking) the *Epilepsie* or falling sickness, *Carus*, and the *Apoplexy*.

Incubus (*the Night-haggs*) *is an interception of the motion, especially that of breathing, and the Voice, with a false and Erroneous dream of some heavy and weighty thing lying along upon the Breast, and thereby causing a suffocation (as it were) and choaking of the Party, by means of the impeding and hindering the free penetration of the spirit (the Passages being obstructed and stopt) unto the Nerves.*

The *part affected* is the Brain, especially in the hinder part thereof, by which the passage reacheth and attaineth unto the beginning of the spinal Marrow. The *Diaphragm* is likewise compressed, and kept down.

The SIGNS are, a heavinesse, and immovableness of the body, and cheifly the Chest or Breast, a slow and dul sense, an imagination and conceit of a suffocation, (especially in the first beginning of sleep, & the party lying upon the back) and as it were an oppression and keeping down by somwhat lying heavy upon it; insomuch that the Patient can by no means distinctly cal and cry out, but only make a confused and unintelligible Noise. The alone interception of breathing and the voice is brought and offered unto the imagination; in regard that the motion of the breast alone is mainly and principally necessary in the time of sleep.

The CAUSE is, an interception of the Animal spirits, arising from a light *Obstruction* of the Ventricles of the brain, and more especially of the beginning of the spinal Marrow. That that Causeth this obstruction is a *Gross* and *thick Vapor*, that is oftentimes cold, yea even Narcotick; and hence it cometh to pass, that the party thus affected is so hardly awakened. That which proceedeth from a gross and thick Flegm, or from a Melancholy Humor sticking fast in the Hypochondria, and neer about the Precordia, this (in these persons) from Gluttony, surfetting and drunkenness (the stomach being thereby sur-charged) from Crudities, or other such like Causes being swoln and puffed up, and then moved, exhaleth and compresseth the Diaphragm and the Lungs, rusheth violently into the beginning and enterance of the Nerves, and so creeping (as it were) and insinuating it self into the very seat of the Imagination, there intermingleth it self with the spirits.

The CURE is the less to be hoped for, if from an internal cause it sieze upon those that are wel in yeers; if it be of long continuance, and frequent, and such as after which the sick person remayneth stupid and blockish; if it happen unto the party while he is half asleep and half awake, because that then it cometh the neerer to the Epilepsie or falling sickness; if after the awakening a cold sweat, a trembling of the heart, a spasm, convulsion, or a syncope follow thereupon. *It respecteth*, 1. the *Paroxysm*, in the which the sick persons are to be awakened & rouzed up, & the vapor is then to be dissipated by frictions and Vehement rubbings.

rubbing. 2. The Cure respecteth the *time out of and after the Pharoxysm*, in which. 1. A *Diet* is to be kept, which exactly requireth a thin and pure Air, sparing meals, especially a light and sparing supper, the use of no other Wine or beer but what is diluted and so made weak and smal; and lastly, a careful avoyding the supine posture of the body, or lying upon the back, when they go to sleep. 2. The *matter* that Foments the Vapors (if it be deeply seated) is to be *Prepared* by such Medicaments as cut and cleanse; and then forthwith *to be Evacuated* in a due and fit manner. The opening of the Cephalick or the Hepatick vein, and if Women (that complain of the suppression of their Menstrual blood) the opening of the Saphena Vein, (especially in case a Plethory be present) is very much to be approved of. 3. The head being first wel purged, is, without delay, to be strengthened; internally, with the *Black* seed of the male Piony; and likewise with *Treacle* exhibited and administred in the water of the male Piony; externally, by Lotions made of Cephalick Medicaments. 4. The Vapors that offend after meats, are to be Remedyed and prevented by the frequent use of *Diacydonium*, *Coriander's prepared*, &c.

Catalepsis, *or* Catochus, *is a sudden surprisal of al the senses, the motion, and the mind, with the which those that are siezed upon and invaded, remain and abide stiff in the very same state and posture in which they were taken and surprised, with their Eyes open and immovable.*

Of SIGNS there is no need. As touching the *Cause*, the learned differ among themselves. It is most probable, that the spirits are fixed and rendered immovable by a *Fixative Vapor*, in such like manner as we read, that both men and Bruit Beasts have been Rendered stiff and immovable by lightening, Vapors, and exhalations breaking forth of the Earth. Yet notwithstanding even in this Disease there are to be recounted several *Degrees*. For some of them neither see, nor hear any thing; others both hear and see, but speak not at al; some again are seen to move their heads; and some of them being driven and thereunto forced, do walk. For the Cure of this most rare and sad affect, see more in the Practical Physitians. In the Topical Remedies hereunto apperteining, we ought to abstain from Vinegar, lest that by it the Congelative power should be augmented.

Article, II. *Of the Epilepsie, or falling sickness.*

The Epilepsie is a Cessation of the Animal and principal actions, together with a Convulsive motion of the whol Body, arising from a sharp matter, which by a peculiar and proper power and quality, it hath, that is hurtful and Prejudicial to the Brain, pulling and twinging the Nerves where they begin, streightening, and as it were binding them fast together, and Irritating them unto Expulsion.

It is likewise called the *Puerile*, or Childish Disease, the *Herculean*, the *Comitial* Disease, (or the Falling Sickness) the *Lunatick*, *divine*, *Sontick*, or noysom and hurtful, and lastly, Caducus, or the falling Evil.

The Signs are, either of one *Imminent* and nigh at hand, and these are, the trembling and quivering (as it were) of the Nerves, splendours and bright shinings like unto the Rainbow flying and waving to and fro before the Eyes, the sense and smelling of some offensive stench, the Vertigo, and the yellowness of the Veins under the Tongue; or else of *one Present*, and these signs are, a sudden falling, a *Contorsion* (as they cal it) or writhing of the Members of the Face, very improportionate unto, (or bearing no proportion with al) the matter thereof, a kind of Roaring and Howling noyse that they make, the guting, and close clashing together (or as they cal it, Collision) of the Teeth, the shutting and fast holding together of the Fingers, an involuntary and insensible letting out of the Urin, and sending forth the other filth and Excrements, foaming and froathing like unto the white of an Egg, &c.

The CAUSE is, either a *thin* and *froathy Humor*, or Vapor, the which whilest that they (by a peculiar and proper power and quality that is in them) twing and pul in the brain the principal of the Nerves, and so thereby introduce a constriction and streightning of the Passages; and whilest likewise they extimulate & provoke the sensible parts unto the expulsion of what is noxious and offensive, from hence it is that there followeth a shuting up, and drawing back of the spirits causing sense (which they term Sensifical) and so consequently by the want & defect of them, there follow-

followeth also ad iminution or total abolition of the aforesayd sensifical Spirits. And from hence it is, that al the parts suffer a convulsive motion. That which *disposeth* hereunto is either (by propagation and *inheritance*) from the parents; or else from their nativity, when as they have their birth in and during the Lunar Eclipse. That which fomenteth and maketh an abundant supply of the *matter*, is, the frequent use of Goats liver and Goats flesh; of Quailes that devour and feed much upon helebor, pigeons when they are somwhat old, Eels, sparrows, al kind of Pulse, Lentiles, &c. that it moveth and much promoteth the same, is the moon beams, the smelling of offensive and noysome stinks, the scent or smel of that fat and clammy earth that we cal Bitumen, of the Agath or Jeat stone, of Goats horns, harts horns, Goats skin, Myrh, Sulfur, Garlick, smallage, &c. an extraordinary strong and vehement feare, much tikling, and lastly, the impulse of the divel, &c.

The CURE is the *more difficult*, if al the Functions be abolished, if the convulsion be stronger and more vehement than ordinary, and of a longer continuance, and that withal the Excrements flow forth of their own accord; if it happen before ripeness of years, and if it infest old and decriped persons; if it invade women with child. It is *easier*, if it be but now beginning, if it hath shorter Paroxysmes, a convulsion not extreamly vehement; if the sick party hath his breathing freely. But there is *almost no* cure to be hoped for, if it be hereditary, if it grieviously afflict little infants, if upon the use of sternutatories the sick Party yet cannot be made to sneez. The Cure (when we set about it) *respecteth*. 1. the very *paroxism* it selfe, either instantly and neer approching, and then a drop or two of the essence of Castor, or the spirit of white Amber in the Antepileptical water of *Langius*, or else one pil of Opiate Ladanum, (unto which there ought to be added and therewithal mingled one fourth part of the oyl of Camphire) is to be taken and swallowed down: or else it hath respect unto the Paroxisme *now present* and in being, in which (among other remedies) the mouth is to be opened and a little bag filled with Rew, Castorium, &c. is to be interposed betwixt the teeth; then a Revulsion by frictions and ligatures is to be ordayned; in the next place, the belly is to be opened and implyed either by suppositoryes, or a sharp and quick Clyster, in the which there are some that boil the drosse or refuse of *Regulus Antimonii*. The Nostrils are to be anointed with the balsam of Amber, and of Rew. The tongue and pallate are to be besmeared and anointed with *Treacle*, dissolved in the vinegar of Rew: if the patient be not yet exited and raised by these means, then sternutatories are to be administred and applied, or else a turtle having al its feathers first pulled off, is to be impoled on the navel. *Inwardly* there is to be administered the water of sweet black Cherries, and that likewise of swallows, with the oyl of Amber, as also that of a mans skul. 2. the Cure hath respect unto *the* time *without* (either before or after) *the paroxysm*, in which. 1. Let the *matter* (the root of the evil) be prepared, the blood being first diminished, unless haply the malady be inveterat; then let it be purged forth by the *inferior waies* and passages, with Agarick, or some other convenient purger (and this at several times by repetition, and not al at once) with special regard had unto the humors that possibly may very much abound. Then let the remainder of the same aforesaid matter be quite removed, and taken clean away by Sudorifickes, especially those exotick and forrien sweaters, to wit, China, and Guajacum, together with our Country birdlime of the Oak. 2. the *matter* that is left *remaining* behind in the brain, is to be drawn forth by errhines, Apophlegmatismes, those remedies that we cal Sternutatoria, and lastly, by issues. 3. Let the *brain* be *corroberated* and strengthened by cephalicks and Antepileptick. 4. Let there be a *diet* kept and observed, in the which al meats generateing vapours, especially such as favour and cherish the disease, wine, venery, &c. are carefully to be avoided. 5. Those things that are appropriated unto the head, and *do specifically resist the Epilepsie* (of which we are now treating) are to be added and together mingled with al the aforesaid remedies; such as are, *the root of the male Peony* gathered in July, at the waning of the moon, the right *hoof* behind of the beast called *Alx*, bird-lime of the Oak, the magistery of *mans skul*, the water of *Swallows*, of Cherries black and sweet, of the Linden or Til tree the oyl of *white Amber*, the oyl of mans skul, wafers made of the dew that is gathered at the feet of St. *John Baptist*, in the night of that day, a Pouder that consisteth and is composed *of one dram of Crystall prepared, red Corall two scruples, oriental margarites one scruple, oriental Smaragdt prepared half a dram*, and so

Exhibited and given in a fit and convenient matter, according to its own propper dose. There may be applied, outwardly, the *skin* of a *wolf*, taken from that part where it sticketh and groweth to the *spina* or Back bone, of two fingers breadth and worne like a girdle, and also the Amulet (ex *frutice sambuci* in *salice*) of Hartmans invention. One signe of a perfect Cure is this, viz. If the Patient fal not into his fits (which appeareth by his falling upon the ground) when there is put neer unto his nostrils a suffumigation of things of an il and stinking savor.

The *differences* of an Epilepsie are very various.

I. One is that we terme *Recent*, or new begun: which if it be neglected in the begining, most commonly it dieth together with them that are deteyned and kept under the power of it. Another is that we cal *inveterate*, which whether or no it may be cured, is for the most part very doubtful and uncertain.

II. Another is that which is *more mild* and moderate, in which only some certain parts are drawn together and suffer a Convulsion; and the sick person when he cometh again to himselfe, as we say, is wholy ignorant of al that he did. Another is more sad and *greivious*, in which there is a Concussion and convulsion of the whole Body.

III. Another is that we term *Periodical*, which invadeth and seizeth the party once or twice in every year, or it may be, every month (at the new and ful moon) or perhaps oftener, but yet evermore at those times and such intervals as it was alwaies wont to keep. Another is that which *keepeth not*, neither observeth *any periods*, But afflicteth and surpriseth the patient, sometimes more rarely, and sometimes again often, and frequently.

IIII. Another is that which is such *in its own essence*, to wit, when there is an epileptical disposition in the very brain. It *is known* by this, that a man suddenly fals down, without any the least pre-apprehension and sense of its paroxism, and that when he returneth to himselfe he remembereth not any one thing of what was done, and lastly, that he is affected herewith chiefly and principally (to which I may likewise ad, very frequently) about the new and ful of the Moon. It *ariseth* and hath its first birth from those very same causes of which we have spoken above; and it is also to be *Cured* in the self same maner. If there there be any need of venesection, then let the Cephalick vein in the Elbow be opened; and here likewise fontinels or issues, and those external and manual remedies which practitioners cal setacea, are of singular use. In this difference alone there may be a cautery applied unto the Coronal suture. It sometimes *hapeneth by reason of an impostume in the brain*; and sometimes from the *corruption* of the *Meninges* or Membranes therof; sometimes again by means of a *rotten and putrified skul*, a *wound*, &c. touching which enough hath been already sayd in its proper place.

Another is by *Consent* or agreement with some other parts, when the cause being before produced and begotten in the inferior parts is lifted up into the head, and there exciteth an Epilepsie. It is *known* by this, that the paroxysm when it is nigh approaching may be perceived and foreknown; and a certain kind of air (as it were) ascending from an inferior part, there is a pain perceived in some one part or other; and then the sick person returning to himselfe remembereth the paroxysm. The *Cure* is to be ordered according to that part that most requireth and commendeth it, and the matter that tendeth upwards is to be drawn back again. It is variously *divided*; of which we shal speak more in the following difference.

V. Another is *from the stomach*; in the which the sick persons fal into the epilipsie: if they take not their food often, then there are present signes and tokens of a distempered and affected stomach. In the cure, we may safely and successfuly have recourse unto vomits, &c.

Another is *from worms*, which are easily discovered by their signes. Unto scolecobrotick Medicaments there ought to be added and therewith mingled Antepileptical remedies.

Another is *from the womb*; which *is known* by this, that there is then some affect or other of the Womb present; to wit, the suppression of the courses, the retention of the Seed, or the Secundines, a dead childe in the womb, &c. The Cure is to be directed and to look toward the Affects in the which the root of round aristolochy is much commended. *Note* here, that the water of swallowes distilled with Castoreum, Galbanum, and vinegar, is most proper and convenient; that for a woman great with child there ought not upon any termes sweet smelling odoriferous things be applied or laid neer unto her wombe; yea likewise, that al odoriferous medicaments, since

they

they offend the Head and make it heavy, are wel removed from it.

Another is from *the External parts*, either wounded, or ulcerated, or else hurt by biting, which is exactly and diligently to be examined and inquired into, lest that otherwise it should be mistaken for that which proceedeth from the Womb. It is to be Cured according to the Nature and quality of the Causes.

VI. Another is of such as *are grown up*, and have attained to maturity of yeers; unto whom al that hath hitherto been spoken upon this subject, is to be applied as most suting and agreeing unto them.

Another is of *Infants*, in the *Cure* of which, if they be yet *sucking* at the Breast, in the *Paroxysm* we must then proceed so as is above declared; only there must be special Care and regard had unto the tenderness of their Age. Out of the *Paroxysm*, the Nurse ought (as far as necessity requireth) to have appropriate Medicaments given her to drink; and withal the Infant is to be Evacuated and emptyed with *Syrup de Tribus* (as the shops cal it) and then his brain is to be strengthened, and the impostums, (if any there be that break out) are by no means to be hindered in their flux, but on the contrary, they are by al means possible to be furthered. There are some that (in this case) do very much commend the anoynting of the whol Body with *Butter unwashed, unsalted, and Mingled with Rue bruised and beaten in a Mortar.* An approved Remedy to preserve from this sad and fearful affect, is, the *preserving power* of Hartman, the *Aqua Vitæ that is* usually *Exhibited* and given *unto Women with Child*; *Oyl of sweet Almonds with Sugar*, given to Childeren new born. In that Difference that is by consent; there is to be highly commended the Emplaster of *White Amber, of Frankincense, and of Mastick, of each one dram and an half, of Galbanum, Opoponax, of each one scruple, of Birdlime of the Oak two drams, Amber six grains, Musk three grains, Male Peony seed half a dram, Ladanum a dram and half, of the Oyl of Nutmeg a smal* quantity, al these aforesaid being strewed over with the pouder of Cubebs, the emplaster must be spread upon leather, and so imposed upon the Abdomen or lower belly. But if (*in Women*) it happen, as many times it doth, from *the Curdling of the Milk*, then that which is of singular use is a Cataplasme formed of *Elm-leaves* (*three parts*) *boyled in the Urine of a Child, with two ounces of butter new and fresh*, and then applied unto the Region of the stomach. The Cure of *Children that are weaned* differeth not much from those before mentioned.

Article, III. *Of Carus.*

Carus is a deep and profound sleep, with the hurt of the sense, and motion, (the breathing only excepted) and likewise the Imagination, arising from the impeded motion of the Animal spirits.

The SIGNS are, sleep (with the Eyes alwaies shut) so profound, that the sick person being asked never so many questions, yet answereth nothing at al; and so it is distinguished from a Catalepsie and a Lethargy: a retraction or drawing back of the Member if it be pricked, which is not done in the Apoplexy; a free respiration and breathing, unless the vehemency of the Cause be most extream and intense.

The CAUSE is the prohibition and hindering of the influence and exercise of the Animal spirits upon the senses and the Motion; of which the divers and different Causes shal be declared in the subsequent differences.

CURE there is *None*, if it chance in the declining of continual Feavers, the strength and powers of the body being extreamly weakened. It is of much *difficulty*, if the breathing be hurt; if it be Joyned together with the heavines of the Head, because that, a humor not over gross and thick penetrating into the substance of the Nerves and extending them, immediatly a Convulsion followeth; and lastly, if it befal the party after some great Evacuation. It is *Accomplished* according to the quality and condition of the Causes.

It is *divided* five manner of waies.

I. One is, *When there are no Animal spirits generated*, which happeneth when either the *Arteries Carotides* that carry the Animal spirits unto the brain are hurt, or else when the *Muscles of the Temples*, (having a very notable and singular agreement and consent with the brain, by the intercourse of some eminent Nerves) *are Compressed*, or bruised.

II. Another is, *when the Animal spirits are dissipated*, which cometh to pass, either from some extraordinary and *excessive Evacuation*, or else from some *exquisite pain*,

proceeding from either an external or an internal Cause; or else, issuing from the *Defatigation*, wearying, and tiring of the *Brain*, by reason of an over-great and extream shaking thereof; which cometh to pass in that heavy deep sleep that hapneth in the Close and conclusion of the Epileptical Paroxysm.

III. Another is, *When the Animal Spirits are stupefied* and made, as it were *drowsie*. And this is done, either *externally*, and that, 1. *From the fume of coals* kindled in some close room, or Parlour; of which we have likewise spoken above. 2. From the use of *Narcotick Medicaments*, *Opium*, Hen-bane, &c. Where Castoreum with Oxymel or Cassia Lignea have their place. 3. From *Poysons*, either taken inwardly, or else outwardly applied; where Treacle ought to be administred. Or else, *internally*, 1. *From Vapors* sent forth *in Feavers*; and 2. From the same Vapors *elevated by Worms*; touching which, their proper places are to be consulted. The Cure may be sought out and found in the following Member of the Difference.

IV. Another is, *When the spirits cannot penetrate unto the Members*. And this is done, I. From the *Compression* of the skul and brain; of which above. II. From the *Obstruction of the Passages*; and then there wil be present signs of Flegm. In the Cure; (a regard being had unto the whol body) Revulsions, head-purgers, &c. are to be administred; and then we may see what is further to be done, in the Cure of the Apoplexy.

V. Another is, *when the spirits are greatly disturbed*, as in case of a blow, fal, or any other accident whereby the Head is hurt, &c. Of al which see more in their own places.

Article, IV. *Of the Apoplexy.*

The Apoplexy is a sudden abolition of al the Animal functions, the breathing alone remayning, (and this likewise now and then exceedingly afflicted) arising from the streightness and shutting up of the Passages, (especially about the basis of the Brain) by the which the Animal Spirits are derived unto the Members.

The *part affected* is the Brain, not only according to the ventricles thereof; but likewise according to its pores, and especially neer about the inferior and hinder part thereof, where the Nerves begin and take their Original.

The SIGNS are (of an Apoplexy *imminent* and nigh at hand) sometimes none at al, sometimes a lightness and swimming in the head (which we usually cal the *Vertigo*) dimness of the Eyes, and wellnigh loss of sight, the Incubus or Night-hagg, a trembling of the whol body, the grating of the Teeth in sleep, an extream coldness of the External Parts, an abundance of Snot and Snivel, the heaviness of the Head, &c. The signs of an Apoplexy *Present*, are, the abolition of the sense and motion, and this suddenly and with snorting; and by this it is distinguished from *Curus*; that it is without a Feaver and excitation, and so it is differenced from a *Lethargy*; that it is with a Relaxation and loosness of the Members, a ful pulse, and the Face reteyning stil its color; and thus it is distinguished from a *Syncope*, and the *Suffocation of the Womb*.

The CAUSE is, the streightness or narrowness of the turnings and windings, and of the pores of the Brain, (especially of the Basis thereof, and of the *Rete admirabile* therein,) as it effecteth a shutting up, or shutting in of the spirits. But from whence this proceedeth, we shal show further in the Differences.

CURE there is *None*, if upon a Difficult drawing of the breath a swear ensue; if immediatly the sick persons strucken suddenly mute and dumb, and without snorting aloud, be not surprised and set upon by an acute Feaver, which haply might attenuate and dissolve the Pituitous flegmy matter, and likewise the flatulent Vapor. The Apoplexy usually, if not alwaies, it terminated, and endeth in a Palsie. It *Respecteth*, 1. *Preservation*, which preventeth and taketh away the Antecedent Cause, and this varyeth according to the Nature of the Differences. 2. It hath respect unto the *Cure spoken of in the several species*; which is *to be begun* with a Prognostick, (when we are to make a discovery whether or no there be any life in the Party) either by lighted Candles (the windows being shut) put as neer as may be unto the Nostrils, or else by a looking-glass clean wiped & put to the mouth of the party. It is *to be Performed*, 1. By a due and fit placing of the sick person, that so he may the more easily attract and draw in the Air, together with a light and gentle concussion and shaking up of the party (lest that by a more violent rowsing of him the matter should be dispersed al the body over) as also by a rubbing

bing of the extream parts with Salt and Vinegar. 2. By the Revulsion of the matter, by Cupping-Glasses imposed on the head, (which is indeed the only Remedy) by strong forcible Clysters and Suppositories; by opening of the Cephalick vein, or the common Median Vein, (without the least delay, and that likewise by several Repetitions, and not al at once, and yet al within the space of a very few hours) and also, lastly, by opening of the Jugular veins, according to their length. 3. The matter is dissipated and scattered by the use of Antepileptical waters, by which the Brain is exceedingly recreated.

The *Differences* of the Apoplexy are many and Various.

I. One is *Legitimate*, of which more in the subsequent differences.

Another is that we cal Bastard or *Spurious*; which ariseth either *from the Obstruction of the Arteries Carotides, and the Jugular Veins*, (of which see in *Carus*) or else from *Narcotick Vapors*, that stupifie and make dul the spirits; where Revulsion hath its place, the Evacuation of the matter fomenting and cherishing the Disease, and the breaking of the stupefaction by Castoreum with Vinegar.

II. Another is from the *Obstruction* of the Basis of the Brain; which is caused, I. Either from a *Flegmatick* and *thick Matter*, either dissolved by heat, or else driven forth by cold into the Passages of the brain. It *is known* by the tokens of a cold distemper. It *ariseth* from the same Causes. It *is Cured*, 1. By the *Evacuation of the peccant Matter*, by *Venesection*, after that by a strong and forcible *Purgation*, by *Errhines*, and Sternutatories put up in the form of a powder; among which that Nose-purger (the Latines and Late Physitians cal it *Nasipurgium*) of *Bartoletus* is much commended; by Fricti ons of the tongue and Palate with Treacle, or Mustard Seed, this last Boyled in strong Wine; by *Cauteries*, Issues, &c. Vomitories have here no place. 2. *By strengthening of the Brain*, by Cephalick waters, the spirits of black Cherries, the Essences of *Rosemary*, *Sage*, the Balsames of Marjoram, Amber, Rue, &c. II. Or else from gross and *thick Vapors*, with the which we ought to proceed, and to deal in the very same manner, as aforesaid.

Another is from *Compression*, which is Caused, I. Either from *Violent Causes*, as for instance, a Concussion, a Blow, a Wound; of al which see above. II. Or from *cold and moist humors*, (heaped up in the Brain,) by their constant and continual watering and moistening of the Brain, Rendering the substance thereof (that is naturally soft) by far more soft and loose; touching which see more in the former member of this same Difference. III. Or else from that which they cal *Flegmonodes, diathesis*, that is to say, an abundant store of blood al at once (as it were) rushing & thronging into the sourse and spring head (as I may so term it) of the Animal spirits. It *is known* by the signs and tokens of a Plethory; there is some wonted Evacuation suppressed. It *ariseth* from the same Causes. It *is Cured*, like as is that which is caused by a Flegmatick obstruction; Yet notwithstanding in this case plenty of blood may be emptyed forth of the veins.

III. Another is a *light* and gentle Apoplexy, which most commonly endeth in a Palsie of the one side or the other, and in which the breathing keepeth some kind of order.

Another is *Vehement*, in the which the Respiration or breathing is violent, unequal, inordinate, and intermitting.

Another is *strong*, in which the breathing is violent, there is also a snorting to be heard, and there appeareth likewise a froth which is but very little, if it be excited by the very humidity of the Lungs from some most vehement compression of the Heart; but very much, if it proceed from a pituitous or Flegmatick humor that is ful of Wind.

Another is the *strongest* and most dangerous of al, in the which the breathing is (as to the sense) altogether abolished.

Chap. 8. *Of the Symptomes of the Excrements of the Head.*

A Single Article, *Of a Catarrh.*

The Symptom of those things that are sent forth from the Brain (by way of Excrement) is a Catarrh, *which is nothing else but a Defluxion or flowing down of some Excrementitious Humor (generated by reason of the Concoction of the Brain its being hurt) from the Head upon the parts that are situate underneath it, proceeding from distemper therein, or else from an over abundant Repletion irritating and stirring up the Expulsive Faculty.*

The

The SIGNES are, of that imminent and neer approching, a sensible weight & heavines in the head, dimnes of the eyes, a sluggishnes and drousines of the senses, sternutation or sneesing, &c. The Signs of a Catarrh *present* and in being, a sensible feeling of a distilling humor, a cough, frequent sneezing, &c.

The CAUSE is a *Phlegmatick* humor, which is somtimes altogether *insiped* and tastles; somtimes *sharp*, salt, acid or tart, discolored; it is somtimes *corrupt*, and peccant in its substance: which. 1. is *generated* either in *the brain*, by reason of its concoction hurt; or else by some fault of the very brain it selfe, or else by reason of something amisse in the aliment; or from some other place, and sent thither, especially in those that have either their brain cold, but their stomach and their Liver hot; or otherwise these cold, and their brain hot. 2. *it is moved*, either by the *expulsive faculty* irritated and excited; or else from causes *introducing heat*, that attenuate and make thin the humors, and withal open the passages; or else from Causes *producing coldnes*; which either expel forth those humors that are in the brain, or else (at least) melteth and dissolveth them by the suliginous and sooty quality that is reteyned, and likewise the heat therein augmented; or else from Causes *Concussive* (as we may terme them) which over vehemently move and shake the brain. 3. *It floweth downward*, in regard *of the terme* or place *from whence* it descendeth; or else from the *parts* that *lye underneath the* Scalp or skul, and more especially the ventricles of the brain it selfe; or else from those *parts of the head* that ly *without the skul*, especially under the skin of the Crowne of the head, where the extream parts or ends of the veins (by the face and the Temples creeping up (as it were, into the head) are terminated: in regard of the *terme* or place *to which* they flow, it is either unto the *internal parts*, the lunges, the nostrils, the stomach, &c. or else unto the *parts external* and that not alone between the skin and the flesh; but likewise throughout the veins and arteries, and also the Continuity of the muscles, veins, and nerves.

The CURE is the *more Difficult*, if the Catarrhs be more frequent than ordinary, and withal more greivious; if they rush down with a kind of impetuousnes and violence; if they invade ancient people; if they are joyned and meet together with a pain of the head. It *hath an eye and regard*, 1. Unto the *matter generated*, which is forthwith to be evaccuated: and in the next place we must indevour to prevent the further growth and breeding thereof; and to this end, the disposition of the part that supplieth and fomenteth it is to be corrected. 2. It respecteth the *matter* as it is now flowing; which is to be drawn back, intercepted, and the part receiving it to be corroberated and strengthened. See more herof in the differences.

A Catarrh is (especially) *divided* in a *three fold* manner.

I. One is from a *humor* both *cold and moist* and this, 1. either *copious*, and rushing downward with a greater violence; (and *then* venesection in the external vein of the elbow is to be administred; lest that from the rest of the Body the humors should flow hitherunto) or else, but *very little*, neither rushing down with any force at al; (and *then* in this case, especially in old age, we ought to abstain from venesection) 2. or else, from a humor *thin* and watersh; and *then* it ought to be prepared moderately by those remedies that incrassat or thicken; as for instance, the decoction of *frankinsense*, of *Mastick*, of *Betony*, and of Nutmeg: we must then purge but with medicaments of the gentler sort, that so the peccant matter may not be too much stirred, and so dispersed throughout the body; and such remedies are as followeth, to wit, *Manna*, and Mechoacan: we ought in the next place to make use of particular evaccuations, by *Errhines*, if the Mother *flow into the Brest and stomach*; but by gargarisms and Apophlegmatisms, if it flow unto the *eyes* and *nostrills*; and then al things being so disposed, that they may fix and inpede the impetuousnes of the Catarrh, the said catarrh is then to be dryed up, and the head to be strengthened, with the little roles of the *flower of sulfur*, *yellow Amber pulverized*, tyed up in a smal bag, made warm in the spirit of malmsey, besprinkled with some drops of the oyl of Amber, and so applied unto the crown of the head; the nostrils and the Tempels having been first of al wel anoynted therewith; with the decoction of the China root, Sassafras, &c. or otherwise from a humor that is *thick*; and then it is to be prepared with such medicaments as warme and attenuate, viz. the decoction of *Hisop*, *Rew*, *Oximel Simple*, *Oxymel* scillitick, (or with squils) we must then purge with *Agarick*, and the extract of the *Cochy* pils. Then we ought to evacuate particularly; where, among the

the Errhines, we prescribe the Seed of *Roman Nightshade* pulverized, and together with the water of Marjoram snuffed up into the Nostrils out of the hollow of the hand. Then the Head is to be fortyfied and strengthened; for which purpose we commend the *water of wild betony* distilled with Wine, of Hartman; as likewise the *Medicate wine* of the same.

Another is from a *hot humor*, which is, 1. to be removed and *taken away*, by Venesection, or Cupping-glasses, lest that (the Head being so hot) there should be more of the Humor attracted. 2. It is *to be Prepared* with cooling Cephalicks, and such as are moderately astringent. 3. It is to be *Evacuated* with Rhubard, &c. 4. The Fourth proceeding in the Cure ought to be as is before declared.

II. Another is that that *rusheth* with *force* and *Violence*, which (besides the diversions, and those other Remedies already spoken of) requireth also *Interception* by Medicaments that stop the flux, and incrassate or thicken the thin Humor, and these to be administred, after Supper, about bed-time, without any waiting for, or expecting a concoction thereof: and such are, *Treacle new made*, *Bole Armoniack* red and light, the bones of a *mans Skul* burned, *Opiate* Laudanum, Pills of the herb *Cynogloß* or hounds Tongue, Pills *Asajereth*, the *Arabick* Pills, Wierus his *pills*, Pils formed and made of Styrax Calamite; the Juyce of Liquorice, Frankincense, Myrrh, Opium, of each half a dram, Saffron one scruple, with as much of Poppy and Rheubard as Shal be thought fit and sufficient; the Trochisques *of Poppy* of Mynsichtus. If the humor be salt, then Spike is to be added; and in those that are *Asthmatical*, al sorts of Odoriferous suffumigations and perfumes are to be shunned. So soon as they awake in the morning, that that hath flown down into the Breast is to be Evacuated.

Another is *Suffocative* and choking, which with great violence floweth to the Lungs and Heart. Unto this we must with al possible speed apply a Remedy by *Revulsion* by Clysters, Frictions, Applications of Emplasters (the hair being first cut short, or shaven) that have in them a power to suspend and keep off the Catarrh; inunctions and often anoyntings of the Nostrils with the balsam of yellow Amber, Suffumigations, &c. In this case, likewise, there is not known a more present Remedy than a *Vomit*, in regard that it also driveth and casteth forth whatsoever is stuffed and impacted into the Lappets of the Lungs.

III. Another is from a *Matter that is gotten together in the brain, through some default of the said brain*,

Another is a certain *matter*, *that is* communicated unto the *brain*, either from a *colder stomach*, and a *Hotter Liver*, or else *from* some *other Bowels*. In the Cure of this, the parts commanding are especially to be heeded, and due provision is to be made for them. And those that find themselves subject and liable unto more *frequent* Catarrhs, these ought *every month (a little before the new of the Moon)* gently to *purge* the Body, and more especially if their belly be dry and costive. The Wine of Pope Adrian, which is so extreamly commended against Catarrhs, is Composed *of the Rinds of al the Myrobalans, together with ther Kernels first of al dryed, of each two drams and an half, Cinnamom one dram, Cloves, Galangal, Cubebs, Cardamom's, Grains of paradise, of each half a scruple, Red Roses dry one dram and half, the flowers of Rosemary (or Anthos) and of Lavender, of each half a dram, wel beaten together, and then mingled with seaven measures of Wine.*

Title, III. *Of the Diseases of the Eyes.*

Chap. 1. *Of the Affects of the Eye-Lids.*

WE have thus finished the Affects of the Brain; the Diseases of the Eyes, either they affect the *parts encompassing about the Globe* of the Eye, or the *constituting* the same; or else *they touch* and affect the *whol globe* it self *of the eye*. Those parts that surround and encompass the Eye are the Eye-Lids, the Eye-brows, and the angular flesh at the corners thereof.

The Maladies and affects of the Eye-Lids are;

I. That we cal *Trachoma*, or a certain roughness of the internal part of the Eye-Lids. *It is known*, by the redness thereof, the itching, and (as it were) the sticking out of Millet grains. *It ariseth* from an adust humor,

mors, that is, Salt, sharp, and biting; and oftentimes likewise, from over sharp Collyries. *It is Cured* by the Evacuation of the body; by the averting and turning away of the matter by Repercussives; by the application of Topical, first those that we cal Emollient or mollifying, and qualifying the Acrimony of the peccant humor; and then by and by such Topicks as cleanse; as for instance, *Aloes dissolved in Rose Water, and Myrrh dissolved in a Womans Breast Milk*; which ought now and then to be intermitted, lest that they over forcibly make an impression of their strength upon the Eyes; and by rubbing of the Eye-Lid inverted and turned the inside outward with Sugar Candy, even until the blood follow. *It is divided* in a two-fold manner. I. Into that we cal *Dasutes*, in which the Eye-Lids are only red, rough, and itching; *Sycosis*, in the which there are sticking out as it were the smal grains or seeds of Figgs; *Tylosis*, in which the part being exulcerated contracteth to it self a sciſſure, and callosity or an insensible hard and thick Skin; and that we term *Psorophthalmia*, or a scab of the Eye, which affecteth the whol Eye-Lid, and specially toward the corners of the Eyes, and this is Cured, (Universal and general Remedies being first premised) by a Liniment of Roses, and adding thereto a very little of Tuty prepared. II. It is divided into that which hath its original from the *blood*; in which the itching is not so great as in the former; from yellow *Choler*, in which there are smal pustules or pushes; from *Salt Flegm*, out of which there passeth forth more of the serous or wheyish humor; and lastly, from *black Choler* or Melancholy in the which that which cometh forth is discoloured, Black, and Blewish.

II. The second Malady and affect of the Eye-Lids, is that we cal *Emphysema*, a Tumor or swelling of the Eye-Lids; which happeneth, either from *external Causes*, to wit, the spiders touch, the stinging of the wasp, the Bee, or the Nettle (and then a Bee bruised and beaten to pieces is to be imposed upon the place) Treacle, and the Juyce Of Plantaine, are to be spread, and the place anoynted therewith. Or else from Causes *internal*, to wit, a *Hot humor*; (where the Ophthalmick of *Rhasis* hath its place, and is of singular use:) *A Wateriſh* and *Wheyiſh humor*, in Feavers of long continuance, watchings, and in the Cachexy; and here Fomentations of a Decoction that Mollifyeth and scattereth, are rightly and fitly administred.

III. The third Affect is termed *Coalitus*, when either the Eye-lids grow together one to the other, or else with the white, or the horny, or both those Tunicles of the eye. It is not to be *Cured without much difficulty*; if the Eye-Lids wholly grow together: but *seldom or never*, if they grow together with the *Cornea* (or horney) Tunicles: but *more easily*, if it stick only unto the eye in the extremity thereof and if it be only (as it were) agglutinated or glewed together unto the *Adnata* Tunicle. It *ariseth* either from an *Ulcer* negligently and unskilfully Cured (in the which whatever in the healing thereof might have been drawn forth, hath been agglutinated; and here in this case opening of the part affected taketh place) or else it hath its Original from a *Flegmatick*, and *Viscid* or clammy *matter* flowing unto the eye-lids; and here we are to make use of Revulsion by Vesicatories, and likewise Repulsion or driving back of the aforesaid matter.

IV. The *Cancer*, whether exulcerated, or not; of which we have sufficiently spoken before in the second Book.

V. *Inversion*, which we may likewise cal *Ectropium*, to wit, the turning inside outward of the lower Eye-Lid, *arising*, 1. from a *Resolution*, or Palsie; of which see elsewhere. 2. From the *Increasing* of the *flesh* in the internal part, which is either to be consumed by Medicaments, or else wholly to be taken away by section and cutting thereof. 3. From the *ill curing of the wound* or *Ulcer*; where likewise incision hath its fit and proper place. Or else it is that which we term *Lagophthalmos*, to wit, of the superior eye-Lids; *proceeding from the undue conformation*, or ill frame thereof, which in regard of its composure wil hardly admit of any Cure. 2. From the *custom of* Children, that in their Cradle are continually looking upwards; and this may be Remedyed and prevented by rolling and swathing about their Head with black clothes, whiles they lie in the Cradle. 3. From *Convulsion* and contraction; and this requireth Emollient Ophthalmick Remedies. 4. from a *Wound or Ulcer ill Cured*; in which case, either the Cicatrix is to be Mollified; or else there must be a Manual operation as the Cause, and as necessity shal require.

VI. That we cal *Hydotis*, (the Latins term it *Aquila*) or an increase of the unctuous sub-

substance in the upper Eye-lid, pouring forth (continually) a Humor, especially in the morning betimes, before the light appear. It *ariseth* (especially in Children) from a serous or wheyish humor, that is fallen forth and gotten betwixt the Membranes of the Eye-lids, in the midst whereof there is that Unctuous or Oyly substance. And this is either *Recent* and new begun, (and then it is sometimes taken clean away with Fasting Spittle;) or else it is that that hath been of *long Continuance*, and included in its peculiar Membrane; and this requireth the operation of the hands.

Chap. 2. *Of the Affects, or things that are amiss, in the Eye Brows.*

THe affects of the Eyebrows are;

I. That we cal *Hordeolum*, being a smal Tumor or swelling, which when it cometh unto a Suppuration is very like unto a Barly Corn; from whence it hath its aforesaid denomination. It *hath its Original* from a Flegmatick Humor, thick, and mingled with blood. *It is taken away* by Barly masticated or chewed upon an empty stomach, and so applied; or by the body of a fly (the head thereof being cast away) if it be rubbed therewith. If it cannot be suppurated, then *Let it be cut* and opened.

II. That which we cal *Grando*, being a round little rising or swelling, transparent, and movable thither. *It riseth* from a matter that is hard, even as hard as a stone. *It is to be Mollified* and suppled with *Ammoniacun* dissolved in Vinegar, and mingled together with the Fat of an Hen, or Turpentine and Wax.

III. That we cal *Madarosis*, or a *Shedding of the hair*, which for the most part invadeth the party after Malignant Feavers. See more hereof before, in the second book. If there be together present with it a Crassitude or thickness, a Callosity or insensible hardness, and a redness of color, and that the Eye-Lids swel, and become shining, it is then named *Ptilosis*.

IV. *Trichiasis* when preternatural Hairs growing up under the Natural hair and pointing inwardly, do prick the Tunicles of the eyes. *It ariseth* from Humors flowing to the extremities of the Eye-lids, either by Reason of some long continued swelling, or else by reason of their being shut up, and, as it were, bound in there. *It is Cured*, 1. By the *Total Evulsion* or drawing forth of the peccant Humors (and an inunction or anoynting with the blood of green Frogs ought ever more to follow upon this said devulsion;) 2. *By Corrosion*, by Corrosive Medicaments anoynted upon the place with due caution. 3. By *Section* or cutting, of which see further in the Practical Physitians.

V. *Phalaggosis*, when (the Eye-Lids turning inward) the hairs appear not, unless the Eye-Lids be lifted up. *It ariseth*, either from Pituitous Flegmy *humor* that load and make heavy the Eye-Lids; or else from the *exsiccation* or excessive drying of the *Cartilage*, together with a depression of the Skin toward the eye brows, ever more following upon the former. For the *Cure* hereof you may likewise consult other Authors.

VI. *Phtiriasis*, or a great abundance of Lice, arising from Nastiness and Filthiness in those especially that seldom or never wash, and keep themselves cleanly, and such as use a naughty and corrupt kind of Diet, delighting themselves in unwholsome food; and sometimes also it hath its rise and beginning from Contagion and infection. It is to be timely and seasonably *Cured*, lest that it excite and cause sharp Defluxions. And here (in this case) the washing of the Eye-Lids, with the Decoction of Betony and Staveſacre, is much commended.

Chap. 3. *Of the Affects, and what is amiss, in the Flesh that is in the Corners of the Eyes.*

THe Affects of this Angular flesh, are;

I. *Rhyas*, or a Diminution of the Caruncle, (Viz. The little piece of Flesh) that is situate in the greater Angle or Corner of the Eye; upon which there flow forth involuntary Tears. It *ariseth* either from *a defect of Aliment*; or else from *Corrosion*, and this either proceeding from Corrosive Medicaments, or else from the afflux of a sharp and Tart Humor, and it happneth after the *Epiphora* or dropping of the Eyes with Rhume, the smal Pox and Measils, and deep Ulcers: or else from *incision*, which can by no means be Cured.

II. *Encanthis*, or the Increment of the Caruncle according to the greater Angle or

Corner of the Eye. *It hath its Original*, either from the ill curing of the *Pterygia*, (as we cal them; they are certain distempers in the little wings and as I may so term them, of the Eyes:) or else from an overgreat afflux of *aliment:* if the Malady be great and of long standing, its not then to be Cured without calling the assistance of Chirurgery.

III. *Ægilops*, which is a little swelling, arising betwixt the greater corner of the eye & the root of the nose. *It proceedeth* from a certain matter driven forth to the Corner of the Eye. It is Variously *divided*; 1. Into *Anchilops*, which is a Tumor not yet broken, and without any inflamation; it proceedeth from a dul and sluggish Humor, (somwhat resembling honey, and a Pultise) that most commonly is shut up in the little bag thereof, and affecting the part, without solution of Unity; and it is to be quite taken away by Section or cutting, and 2. into *Ægilops*, properly so called, which is a swelling broken, and with an inflamation. *It is known* by the smart and pain that attendeth it, the change of its color, and the immobility and fixedness of the Tumor or swelling. *It hath its Rise* from blood poured and shed forth of the Temple Veins, the Forehead, or the Face Veins; and cheifly if there be a Concurrence of any external Cause. *It is Cured*, 1. With some *Difficulty*, especially if it siez upon the deeper parts thereof, if when broken it retire inwardly, because that it easily Corrupteth and spoileth the bones that lie underneath it, if it come neer unto the Nature of a Cancer. 2. Is cured *after the manner of other inflamations.* And for the most part that kind of *Fistula* they cal *Lacrymal*, followeth and attendeth upon it; which (as wel by Reason of the continual a flux, as the perpetual motion of the Eye) is for the most part to be accounted a Chronical Malady and distemper. In its *Cure*, before it be consolidated, we ought wel to look and consider, whether or no it hath contracted and gotten to it self a *Callum* (as they term it) or insensiblness, and whether or no there be any bone Corrupted which the roughness of the bone, or the sound and noise that it maketh wil soon discover.

Chap. 4. *Of the Diseases of the Adnata Tunicle.*

Article, I. *Of the Ophthalmie.*

THe Parts Constituting the Eye, either they are the Tunicles, Viz. *Adnata*, *Cornea*, *Uvea*, and *Aranea*; or else they are the Humors thereof. The Diseases of the *Adnata*, are, the *Ophthalmy*, *Pterygium*, *Panniculus*, and *Hypospha*sma; of the which two latter, this is common to the *Cornea* Tunicle, that unto the Eye-Lids.

The Ophthalmy is an inflamation of the Adnata *Tunicle, arising from a sharp blood distending the smal Veins thereof.*

The SIGNS are, redness of the Eyes, a flowing forth of tears, a pain, &c.

The CAUSE is *Blood*, which either alone, or else castigated by other Humors, sliding forth unto the part affected either by an afflux, or else by congestion is dispersed thorow the Veins, and so distendeth them.

The CURE is *Difficult*, if it arise in cold Regions, and in a cold time, because then the Members are more than at other times streightened and confined; if it infest and annoy little Children, because that it continually followeth from a tender and weak Head; if the pain presevere and long abide, because it argueth a matter either corroding, or vehemently distending, or suppurating; if it be by consent from the Membranes of the Brain, and the parts contained within the Skin; if there appear in the Eye smal grains of filth, because these signifie a slowness of Maturation. It is *more easie*, if it be by Consent from the external parts; if the tears be more abundant, and more smarting, because it cometh the sooner to an end; if the belly be quick, in regard that the loosness of the belly freeth the party from it. It is to be *accomplished*, according to the Method of other Inflamations. *It is to be noted in this*, that somtimes by Venesection the greatest *Opthalmies* are wholly taken away within the space of an hour. 2. That Vesicatories applied behind the Ears do very wel draw back. For this purpose there is much commended by Hartman the meat of the Herb Rocket in a quilted bag. 3. *Errhines*, (and those not overstrong and violent) are to be administred, if the sick person hath bin wont to evacuate the excrements of the head by the Nostrils. 4. Topicks are to be applied, (but yet not until the end of three whole days) and these are to be actually some that warme, without any the least mordacity or Carroding quality, wel cleansed and purified, and corrected by such repellers as are in their own propriety helpeful; neither must they be too cool, nor too astringent, neither over dry; and those may presently be put unto

to the forehead, and the neck; and they are to be followed with Anodynes, which (if there be any fear of a greater afflux) are very fitly applied to the eye, from the very beginning. 2. the womens milk is every hour to be changed, lest that after long continuance it contract a certain kind of acrimony from the heat of the eye. 3. Opium and opiate medicaments are by no means to be administred without great and urgent necessity. 4. Great caution must be had, lest that there should be any suppuration in the inward parts. 5. In the diet, wine and the use of baths (in the declination of the disease) may very wel and without danger be allowed and permitted unto the sick person. A Cataplasme of the *Crumbs of wheat bread and a rosted apple, with the brest-milk of a woman, together with a little saffron and sugar of saturn*, is exceedingly commended. And so likewise is the water that is made of the *juicy substance of Craw-fish distilled, two pints thereof, of Rose water one pint, and Crocus metalorum half an ounce, infused altogether*: as also *of the waters of the eyebright, and Fennel, of each alike five ounces, with metalorum one dram; unto which* there may be added *a fit proportion of rosewater*. Among the discussives, *Sarcocol* wel washed, and the *true Tutty of the Arabians*, (which drieth without any kind of biting) obtain their place and use.

The *Differences* of the ophthalmy is threfold.

I. One is that we cal *Taraxis*, or a pertutbation, *which is known* by this, that the eyes only appear to be hotter, with a certain redness in them, and without any great abundance of tears. It *ariseth* from external Causes, to wit, 1. the *heat of the Sun, or the fire*: and then the Cataplasme before mentioned may very fitly be applied. 2. from *a pain of the* head contracted from the suns scorching heat; and then likewise the aforelaid Cataplasme hath its place, unless haply general and Universal remedies ought altogether to preceed, and take the the first place. 3. from *wind, smoake*, and *dust*; and the eyes are to be washed with milk luke warme, and sleep to be taken thereupon. 4. from a *blow*, or a *fal*; and then blood ought immediatly to be drawn forth by opening a vein. 5. from the stinging of a *Bee, Wasp*, or *Hornet*; and then Repellers of the white of an Egge, the breast milk of a woman, &c. are to be imposed.

Another is the *true* and genuine *ophthalmy*, which proceedeth either from hot, or from cold causes; and to this al that hath been before spoken doth properly and cheifly belong.

Another is that we cal *Chemosis*, whenas the eye lids are as it were inverted, and turned the inside outward, (neither can they be closed) and then there appeareth a swelling of something that is white above the black of the eye; and this needeth and requireth the stronger sort of remedies.

II. Another is *Periodical*, which kepeth its intervals; it is familiar unto hot & moist heads; & at length it casteth the eyes into a consumption. Another is that, that *keepeth not its periods*. Another is *Contagious*.

III. Another is *Moist*; of which we have now most cheifly treated.

Aonther *dry*, in the which there is but a very smal flux of tears, and in the night-time the Eye-Lids contract an hardness. *It hath its original* from a humor that is not much in quantity, but very salt and nitrous. And it is either *with an itching* attending it; (which if teats gently flow forth, it is then called *Psorophthalmia*; but if there be no tears at al, and that the eyes are only red, without any swelling, it is then called *Xerophthalmia*) or else *without an itching*, and with a certain hardness of the Eye-lid, and then it is termed *Sclerophthalmia*. The Cure hereof followeth the method of that before mentioned.

Article. II. *Of the Nail, or little wing, the web, and the Hypospbagm of the Eye.*

I. *The Nail (or little wing, as they terme it) of the eye, or, as some cal it, the arrow, is a little membrane that is nervous, fibrous, and somwhat white, which proceedeth forth from the corners of the eyes (the greater of them especially) and cleaveth fast unto the* Adnata *tunicle; and is somtimes drawn forth in length even unto the* Cornea *tunicle; and very often (if it so much increase) covereth and over spreadeth the Pupilla or Bal of the Eye.*

This Affect needeth no SIGNS, since that it is evidently exposed unto the view. It is discerned from the Lachrymal flesh by its white shining brightness.

The CAUSE is Blood, mingled together with thick, viscid and clammy Humors, flowing down from those parts that are contained betwixt the Skul and the Skin, and bringing upon the place a certain kind of Scabbiness or scurfiness, which while the nutritive faculty endevoureth to render and make equal, it

produceth an increase of the membrance beyond the ordinary course of nature.

The CURE Requireth. I. The *Premising* of the general and *universal remedies*. II. the *extertion and extirpation of the nail*, after it hath been for a while fomented, either with a decoction, or some temperate distilled water. Among the several sorts of medicaments, there is commended the pouder that is made and prepared of *Egg-shels*, and then cast upon the eyes; the *Medicinal* stone of *Crollius* in the water of roses and Eye bright; the specifick of *Hartman*, of the fish *Lucius* we cal it the *Luce* or *Pike*; the same Hartmans water *of the whits of Eggs*; and other such like remedies; which if they be sharp and piercing, ought to be quallified and corrected with *Tragacanth*, and the like; and exceeding great Caution must be had, that the tunicle Cornea be not touched. III. It requireth *Chyrurgery*; of which you may see further, if you consult Authors upon this very subject. IV. A *Diet* in which there ought to be an abstinence from wine and meats that generate store of vapours.

It is many wayes *Divided*

I. One is that we cal *Albicans*, or tending to whiteness; Another there is that *tendeth* to a *blackness*, which is not to be removed by any remedies whatsoever. II. Another *Recent* or new, which may soone and very easily be dispersed, and quite taken away. Another is *Inveterated* and old, unto which if a thickness chance to accrew, and be added thereto, it ought then to be cut out: yet sometimes notwithstanding it sticketh so close and pertinaciously unto the *Adnata* tunicle, that it cannot be taken away thence, no not by the Chirurgeon himselfe without manifest hazard and danger of hurting the eye. III. Another is that which is produced only *unto the* Cornea tunicle, and no further. Another, that is *extended along even unto the very pupilla* or Eye-bal; and this if it be taken away, it indeed wholly freeth the eye from fluxions; but if a Cicatrix or star be left remaining it very much hindereth the sight of the eye. IV. Another is *Cancerous* and *Putrid*, which admitteth of no Cure at al; Another, that is not as the former.

II. The Pin or web of the Eye is a certain red substance like unto a smal piece of cloath, arising from the exuberancy and over great abounding of blood, in the Exterior veins of the Eye.

There is here no need of SIGNS. There appeareth (especially in the superficies of the tunicle *Adnata*) as it were a fleshy web, with an itching, a pain, an offending of the eyes by the light, the sight obscured, or quite and clean taken away.

The CAUSE is a blood derived unto the eyes, either simple and alone, or mixed, either by the way of fluxion or of congestion; and this either by the external vessels, and then the forehead swelleth a little; or otherwise; by the internal vessels, and then there is a certain pain extending it self even unto the very roots of the Eves.

The CURE is performed, I. *By the Use of Universals*, or remedyes in general. II. By *Abstertion*, by those things above mentioned. III. By *Chirurgery*; touching which those Authors that are extant upon this Subject.

III. The Hypospha*gm, or Sugillation (as they cal it) is a blemish or spot, reddish or black and blew, arising from blood poured forth of the veins being opened, and common to the tunicle* Cornea.

There is no need of SIGNS, forasmuch as the malady or Evil is easily discovered by the very beholding of it.

The CAUSE is whatsoever may open the veins, whether it be External or internal; as shal be further shewn in the differences.

The CURE is *Easie*, in the beginning, It *is performed* (Universal or general remedies having gon before) if the afflux be greater than is usual, *by discussives*, at first such as are more gentle, and corrected by astringents; but afterward, those that are stronger and more forcible, and yet withal such as are void of acrimony and tartness, left that there should more of the blood be enticed and drawn forth unto the part affected.

It is Divided three manner of waies.

I. One is from *Causes External*, a blow, clamour, and sounding of trumpets; in which we must presently have recourse unto *Topical* remedies, to wit, the decoction of the flowers *of Melilote*, and of *Roses*, *Fenugreek seed*; Colliry composed of the *blood of Pigeons, taken out of their wings, two drams thereof*; *the breast milk of a temperate Woman half an ounce, and frankincence one scruple.* Another is from *internal Causes*, to wit *either great store of blood*, (where Venesection must by no means be ommitted) or else from the extraordinary *great heat thereof*; and then the spot or blemish tendeth unto a Citrine colour. We must withstand and oppose the inflamation by the *white of an Egg wel shaken together*; if

there

there present any Pus or filthy purulent matter the same is to be lessened by a Collyry composed of the *Mucilage of fenugreek, with fennel water and honey of Roses.*

II. Another is *Recent* and new beginning; in which the blemish is of a red colour. Besides the Topical remmedies above mentioned, *the tops of hissop* boyled in ordinary and common water, tyed up in a little bage, and so applied, is of singular use and bennifit in discussing the peccant matter. Another is *inveterate* and of long standing; in the which the spot or blemish is black and blew. And for this we usually prescribe (as most proper and convenient) a Colliry compoled of *the Juyce of the greater Selandine and Carduus Benidictus, of each halfe an ounce; of the fat of the bird they cal Quœstula* (or Queist) *liquified and dissolved, two drams, and of mirrh half a scruple*; as also *the Root of sigillum Solomonis* or Solomons Seal, well shaken together, &c.

III. Another is, *When blood is cast forth either into the Adnata* or the *Cornea* Tunicle. And another, *When* it is cast forth *into both these Tunicles* at once, and together; and then *all the Objects* that the Sick person looketh upon seem to be of a color tending to Redness.

Chap. 5. *Of the Diseases of the Tunicle Cornea.*

Article, I. *Of Crassities, Nebula, and Albugo.*

THe Diseases of the Tunicle *Cornea*, are, Crassities or a certain kind of thickness, *Nebula*, (or a little Cloud) *Albugo*, (or a white spot in the Eye) Pustules or Pushes, *Ulcers, Wounds*, and *Pain*.

I. *Crassities* (or thickness) *Is an extream drying of the substance thereof*, and therewithal there Joyned a certain Corrugation or winkling. *It is known* by this, that (as it were) in the superficies thereof there appeareth a little bloud, and the sick persons see as through smoak. *It ariseth* either from the incautelons and careless *Application* of *Cold* Remedies, and this especially after an Ophthalmy; or else from Gross and *thick humors*, that insinuate themselves. In the *Cure*, there is to be commended the *Juyce* of *Salendine* pressed forth, and instilled into the Eyes drop by drop.

II. *Nebula* or the little cloud, as the *Color of the Tunicle Cornea, altered and changed by a subtile Humor flowing forth.* That which is prevalent in this case, is the powder of *Margarites prepared*, in the water of Roses and Fenel; and the *Cataplasm* of *Platerus*, in his second Book and 19. Observation.

III. *Albugo* or (as they cal it) *Lencoma, is a white spot, rendering the Cornea* (tunicle) *so thick, that there is denied al manner of passage unto the visibl species. It ariseth* either from a *Cicatrix* (or scar) after a wound, or an ulcer; and then the *Cure* is *difficult* in those that are ancient; but more easy in children and young people. It *is performed*, 1. By the appliing of emmollents or mollifiers. 2. By absterson, where the watter of *Rosemary flowers* dropped into the eyes, and the fat of the *fish Mustela*, have their place and use. Or else it procedeth from *flegm gathered together betwixt its lapps*; and then the *Cure* is easy. And to this end the purpose excellent good is the colyry that it prepared of *Lapis Calaminaris* thrice burnt and *twice extingwished in wine vinegar, one scruple hereof, Myrrh, lead burnt and washed, of each half a scruple, of Oriental Saffron five grains, opium eleven grains*, of burnt brass four scruples, *the decoction af fenugreek* one ounce; al these throughly beaten together and incorporated upon a marble stone or Porphyry.

Article. II. *Of the Pustules and Ulcers of the tunicle Cornea.*

Pustuls are little risings, that are common to the Adnata and Cornea tunicles. They are known by the very sight in magnitude equalling the grain or seed of a millet, of a black color, of an exact roundness, and in that they exhibet not a white circle in the bottom; by these they are distinguished from the falling forth of the *Uvea* (the fourth Membrane, or thin Skin) of the Eye. *They arise* from a Humor that is sharp and serous or Wheyish, lifting up the Tunicles. They are *Cured* the *more easily*, if they be in the *Adnata* Tunicle; but *with more Difficulty*, if they be nigh unto the *Pupilla* or Bal of the Eye: and *not at al* by any means possible, if the *Cornea* be broken into the internal part. They are divided in a twofold manner, *Like as the Ophthalmy.* I. *Some* are with an inflamation, which are Cured like as other inflamations. *Sacharum Saturni* (or, the Sugar of Saturn) with the

water

water of Eye bright, is (here) of al Remedies the best and cheifest. *Others* from a wateriſh Humor, which require Exſiccating and drying Remedies, as for inſtance, *Tutia Lapis Calaminaris*, &c. II. *Others* are Superficial, called *Epicaumata*, which appear in a darker color. *Others* more deep, under the ſecond or the third film, (called *Encaumata*) which by reaſon of the whiteneſs of the *Cornea* Tunicle ſeem to be the whiter; and are therefore dangerous, becauſe they can and often do eat through the whol *Cornea* Tunicle.

II. *The Ulcers of the Cornea Tunicle ariſe, ſomtimes from External, and ſomtimes from things Internal, or that flow in, or that are heaped up together*; And they have various and different names given them, (by which they are ſufficiently known and diſtinguiſhed) according to the variety of Circumſtances. That is called *Bothrion*, that is hollow, narrow, and hard. *Koiloma*, that which is broader, but not ſo deep. *Argemon*, that that ariſing in the External party colored circle of the Eye, and being of ſomwhat a Red color round about the external part of this circle that is particoloured, but white about the internal part thereof, Comprehendeth likewiſe within it al things that ſurround and encompaſs it. As touching the *Cure*, it is to be wel obſerved, that Medicaments are to be applied and put to the Forehead, and alſo unto the Temples, (that ſo the influx may be impeded, and that the ſaid Medicaments ought to be gentle and temperate. The *Ophthalmick Water of Mynſichtus* is (here) by ſome exceedingly extolled.

Article, III. *Of the Wounds of the Cornea* (Tunicle) *and the pain of the Eyes.*

The *Wounds of the Cornea* (in general) require, 1. *Evacuation*, and that more eſpecially by Veneſection. 2. *Revulſion*, (that ſo the inflamation may be prevented, and hindered, and the pain mitigated) by Cataplaſms impoſed upon the Eye-Lids alone, that ſo both the Eye and the Eye-Lids may be opened. 3. *By Conſolidation*. And for this purpoſe, there is very much commended that part of the white of an Egg which the Germans cal *das Tuchen*, and the Italians *Galatura*, wel beaten together; as alſo the *Red Oyl of Saturn*. If we conſider the *Differences*, 1. *Somtimes* the *Cornea* alone is wounded; but then again *ſomtimes* together with it the Eye-Lids likewiſe; where care muſt be taken that they be not glewed together with the Eye. 2. *Somtimes* the wounds do not penetrate ſo deep. *Somtimes* the *Cornea*, is broken, and then there flows forth a Watery Humor, which likewiſe happeneth in Ulcers. And then, if the wound be Narrow, it hath in it the leſs danger: but if the *Uvea* (Viz. The fourth Membrane, or thin Skin of the Eye) fall forth, it is altogether incurable. The *Cure* is one and the ſame with that of a wound and Ulcer of the Eyes.

II. *The pain of the Eyes*, chanceth unto and befalleth the Eyes, cheifly and eſpecially by Reaſon of the External Tunicles. *It is known* by the Relation of the ſick party. *It ariſeth* from Cauſes that Excite and haſten the Solution of Unity. *It is Cured* by taking away the Cauſes. It *is Mitigated* by the Whites of Eggs, the Pap of a roſted Apple with Sugar, Camphire, Saffron, Roſe-water, and the Breſt-Milk of a Woman. We muſt (here) beware that we preſcribe not the uſe of any *Opiates* whatſoever.

Chap. 6. *Of the Diſeaſes of the Uvea.*

Article, I. *Of the falling forth of the Uvea, and the Dilatation, Widneſs and Narrowneſs of the Pupilla, Viz. The Bal or Apple of the Eye.*

THe Diſeaſes of the *Uvea* (one of the Tunicles in the Eye) are, *the falling forth* of the ſaid *Uvea*, *the Dilatation of the Pupilla*, the Narrowing and contracting of the ſame, as alſo the *Suffuſion* thereof.

I. *The Uvea falleth forth, when the Unity of the Cornea is Diſſolved*, either by wounds, or by Ulcers. *It is known*, and *diſcerned* from Puſhes, from hence, that the part that falleth forth is either black, or Skie-colored, and in the bottom of it exhibiteth a white Incle, (which is from the Lips of the *Cornea* eaten through) and the Pupilla, or Eye-bal, appeareth as if puld aſunder in ſome one certain part thereof. *It is Cured* by Medicaments that are Aſtringent without any aſperity; and if it be not removed by theſe, then it is requiſite that we make uſe of the inciſion knife. For the *Differences* ſee further in *Æginela*.

II. The *Dilatation of the Pupilla*, *called Mydriaſis and Platucoria*, *is when the Pupilla*

Pupilla is inlarged (above and besides the ordinary course of nature) toward the iris or particoloured circle of the eye. It *is known* by this, that the sick persons (either by reason of too much of the External light breaking in upon the eyes, or else, in regard that because of the falling of the Sun beames in an oblique manner upon them, (these oblique wayes being weaker than those that are perpendicular they are not able to see and discerne so clearly and acutly, when they would look upon any object, they then a little close their eyes, and the one of them being shut, the pupilla of the other cannot be dilated. It *ariseth* from the Extension and stretching out of the *Uvea*, (of which this said Pupilla is the hole or inler) either by reason of external, or else internal causes. For the *Cure* hereof, it must be sought for in the differences. It *is divided* in a threefould manner. I. *One* is native, and such as is contracted from the very birth. *Another* Adventitious, and happening accidentally. II. *Another* is from external Causes, as a blow, or a fal from on high, &c. which if it be altogether without any inflamation, is easily and soon cured but not so if it be accompanied with a rupture of the *Uvea*. *Another* from Causes internal, which are particularly expressed in the following difference. III. *Another* is from siccity or drynes extending the *Uvea*, (like as we see in skins or hides that are perforated) and this is not to be cured without some difficulty. The best remedy in this case is Goats milk, if the eye be wel washed therewith and as it were drenched therein. *Another* from humidity; the cure whereof is so much the more easie, if it chance not after an extream and Vehement pain of the Head. It is performed (universal and general Remedies being first premized) by the drawing forth of blood out of the Temple Veins, and the Veins in the corners of the Eyes, and by the applying of Cupping-Glasses in the hinder part of the Head, and Leeches behind the Eares; and likewise by the Use of Resolving Medicaments (among which salted Water is much commended) that have in them but little of astriction. *Another* from blasts & blowings, (which happeneth unto Trumpeters) & these flatulencies or windinesses are to be discussed & scattered, as aforesaid, in affects of the like Nature.

III. *The straightness or narrowness of the Pupilla (which they term Myosis) is when it irrendered and made narrower than naturally it ought to be.* It *is known* by this, that al objects whatsoever that the sick persons look upon seem bigger than indeed they are; that the visible species being conveied in through a straight and narrow inlet, may be and are dilated in that broader space neer unto the Crystaline humor. *It ariseth* from the contraction of the *Uvea*. *It is Cured*, according to the Nature and quality of the differences. *It is Divided* according to the diversity of the Causes. *One* is from overmuch humidity, contracting the *Uvea* from the Circumference towards the Center; For the which, those Medicaments that are exsiccating and drying, (such are Rew and Selandine) are a very fit and propper Remedy. *Another* is from a defect of the watery humor; and then the Patient wil see and discerne better in the room that is obscure and dark; because that the visible species are more aptly and speedily Conveyed unto the Crystaline humor. In this case an aliment and supply is to be attracted and drawn unto the part, by applying of milk and sweet water unto the head. *Another is from* a more scant and spare afflux of the visive spirits unto the said Pupilla.

Article. II. *Of a Suffusion.*

A Suffusion (otherwise termed Hypochyma) *is an obstruction of the Pupilla, hindering the sight, and caused by a humor consisting in the eye, and residing in that part thereof.*

The SIGNS are divers, according to the quality and Condition of the rise and original, of the augmentation, and of the perfection or Period thereof; and they shal severally and apart be explained in the differences.

The CAUSE is a humor, either sincere and single; or else mingled; whether it be there collected, or transmitted thither by the veines of the tunicles, the *Uvea* tunicle, or the Nerves. It *is collected* most especially in those eyes that are great and sticking out (we term them Goggle eyes) in regard that the visive virtue, when it is diffused in a wide space, is the more infirm and weak, and the laxity of the waies or passages affordeth a very facile and easie entrance.

The CURE *is difficult*, if it chiefly happen from a feaver, or some extraordinary vehement pain of the head; if it chance unto yong childeren or old aged people; *and none at al*, if the suffusion be black; if the sick person discern not the light. It *is wrought* (if at al) I. *By the drawing forth of the obstructing matter* by purging Phlegmagogues, and especially *biera*, and the *electuary* that they cal *diacarthamus*; but before these we may premise and administer

nister preparatives. II. By *revulsion* of the *same* matter by Cupping-Glasses, Vesicatories, &c. III By a *discussion* of the *said* matter by Topicks mingled with Emollints or mollifiers, and the clearing and cleansing of the eyes. And here (for this purpose) there is commended the water called *aqua Fœlis*, the remmedy of *Bovius*, formed of the gal of a Cock, half an ounce, the blood of a mouce three drams and a half, and so made up (like unto a Collity) with the breast-milke of a woman: or else water of mans dung, known by the name of *aqua stercoris humani Elambicata, with the gal of a Weasel, and likewise of a hare, saccharo caudi rosato, and margarites prepared.* IV. By *Chirurgical* operation; of which we are (for further satisfaction in this point) to consult those Authors that have treated at large uppon this subject.

The *Differences* of a Suffusion are Various.

I. *In regard of its Situation*; 1. *One* is in the Center of the *Pupilla*, which Representeth the Objects as though they came and passed through the Windows; and this ought not by any means to be attempted by the needles point, lest that the whol *Pupilla* be filled with the peccant Humor flowing thereunto. 2. *Another* resideth between the *Uvea* and the *Cornea* Tunicle; and *then* the *Pupilla* is evidently seen to be extreamly obscured and darkned; and the *Pupilla* is of necessity dilated by Reason of the Humor that distendeth it. 3. *Another* resideth betwixt the *Uvea* and the Crystalline humor; and then the opposite unto the former do manifestly appear. 4 *Another* is seated in a deeper place; and then the *Pupilla* is very narrow and much streightned. *Another* is situate in a place less profound and deep, and then the said *Pupilla* is larger and wider.

II. They differ *in regard of the degrees*; for *One* is but new beginning, and then there fly to and again before the Eyes as it were Gnats or some certain other dark and dim appearances. *Another* is Augmented; and then the color of the *Pupilla* appeareth like unto that we cal sea-green; or else it is like unto the Air when ful of little Clouds. *Another* is Perfect; in which the sick person discerneth nothing at al; and then the *Pupilla* appeareth to be of a white color.

III. They differ *in regard of their Cause*: 1. *One* is from a thin matter and such as is Fluxile (as for most part it is wont to be in the beginning) and then, if there be present a Plethory, we may prescribe Venesection, and cause a Vein to be opened. *Another* is thick, clammy, & tenaceous and then we ought to abstain from bloodletting. 2. *Another* resembleth the cleer & pure air; as also it resembleth silver, Playster or Parget, and Margarites; and this kind leaveth some Hopes of a Cure. *Another* is black, which is by no means to be Cured, no not by the Needle. *Another* is Green; which is likewise altogether incurable.

IV. *Another* is that which is truly and properly so called; (and of this al that hath hitherto been said upon this subject ought to be understood;) which siezeth only upon one of the Eyes; or else if both, yet not together, not a like, and whose Symptoms are constant and continual. Another is Bastard and *Spurious*, which carryeth it self quite contrary unto the former; and ariseth from a Vapour ascending from the inferiour parts; and is wholly taken away, when the Affect is removed.

Chap. 7. *Of what is amiss in the Humors of the Eyes.*

THe Humors that (together with the Tunicle) constitute the Eyes are in number three, to wit, the *Watery*, the *Chrystalline*, and the *Glassie* Humor.

I. The *Faults* or things amiss in the *Watery* are especially four. I. The *Diminution* thereof, by reason of heat, dryness overmuch Evacuation; which in regard that it is conjoyned with the dryness of the whol body, is there not to be Cured without much difficulty. II. *Effusion*, when it is poured out, which happeneth in the Rupture of the *Cornea*; and then a wound or Ulcer went before; the *Cornea* Tunicle lieth underneath. This Humor is somtimes bred again of its own accord. III. A *Crassitudo* or thickness, arising from the admixture of thick Humors or Vapors; and then the Humor appearth not to be altogether so cleer as it is wont; and certain resemblances or babies (as we term them) fly up and down before the Eyes; &c. IV. *Obscuration*, and *another kind of Color*, by Reason of the Humors that are therewith mingled. These things may be wel known at the first sight and by the very view.

II. Those things that are amiss in the *Crystalline Humor* are especially these. I. *Glaucoma*, when this Humor is turned into a Grey color. *It is known* by this, that about the *Pupilla*

Pupilla there appeareth a notable & manifest whitness somwhat deeply seated, and al things are seen as it were through smoke and little clouds. *It ariseth* from exsiccation, which happeneth either by Reason of Age, or else from some other Cause. II. *Solidity* and *Obscurity*, which therefore needeth a greater illumination; from whence proceedeah that we cal *Nuclalopia*, or a Nocturnal blindness; with the which such as are affected, see indifferently wel in the day time, but more obscurely and dimly after sunset, and in the night time nothing at al. III. The *Scituation changed*, which is wont to happen many waies. 1. *Upwards or downwards*, from whence the incruciation (as they cal it) or Crossing of the Opticks is dissolved; or else the Axes of the Pyramids thereof are fixed in a double plane, and so al things appeare double, 2. *At the sides*, and then things appear more on the right side, or on the left, than indeed they are. 3. *Towards the middle and the Center*; from whence it is that those things that are nigh at hand are rightly seen, but things more remote are not distinctly enough discerned. 4. *Beyond the middle and Center*, toward the Optick; and then those things that they desire to discern, they are constrained of necessity to lay them close to their Eyes. *Towards* the *Pupilla* or Bal of the Eye; and then they rightly discern those things that are remote and at a distance from the Eyes.

III. Those things that are amiss in the *Vitreous* or Glassie *Humor* are, I. The *Augmentation* thereof, by which not only the Pupilla is the more dilated, but likewise the Crystalline Humor is obscured, and hath as it were a mist and shadow, cast before it, and the Spirits also much dulled and blunted. II. *Diminution*; from whence the Tunicles are wrinkled up together, the *Pupilla* contracted, and falling down above the Crystallaine Humor and abbreviating the space betwixt it and the Tunicles (in the which the external splendours meet together) produceth the very like affect as in those that wink with one or both Eyes that they may the better behold the bright body of the Sun. III. A *Crassitude*, or thickness, which ariseth either from the mingling together therewith of an humor, or else from the admixture of some other adventitious substance.

Chap. 8. *Of those Diseases that infest and annoy the Globe of the Eye.*

THose Diseases that infest and affect the Globe of the Eye, are, *Atrophy*, *Procidency* or standing out, and *Strabismus* or Squinteyedness; unto the which may be added out of the Symptoms, the *Debility* or weakness *of the sight*, and stark blindness.

I. *Atrophy* is then, when the parts of the Eyes consume and wast away. *It ariseth* most especially from excessive Evacuation, and over great exsiccation. It *is Cured*, by those Medicaments that humectate and moysten (and cheifly the Breast-Milk of a Woman) layed therein.

II. *Procidency*, when the Eye either stands out of its Orb in an unusual and unbeseeming manner; or otherwise falleth out so (at least) that it cannot be covered with the Eye-Lids. *It ariseth* from Causes as wel External (a blow blowing of Trumpets, strangling, Hard Labour in Child bearing, &c.) as internal, to wit, the resolution of the Muscles and Nerves, a Tumor thrusting forth the Eye, &c. In the *Cure* we must have regard. 1. Unto the *putting back* of the Eye into its proper seate, or if that may not be done, then wholly to take it away. 2. Unto the *Deteining* and keeping of *the same* in its place or seat, by Fomentations made of Astringents, to wit, Roses, Pomegranate flowers, and *Acacia*. Neither must we forget to let blood; and the inflamation is likewise to be repelled and driven back. If Resolution be the cause thereof, then Apophlegmatisms are very available.

III. *Strabismus* is then, when the *Pupilla* or bal of the Eye declineth from the middest, so that it appeareth more in one part of the Eye than in the other. It *ariseth*, either from an *ill* frame and *composure* at the first from the very Womb, and then it is not by any means to be Cured: or else it chanceth from an *ill custom*, as it is usually to be seen in infants: and in this case Vizards or Masks are to be put upon the Face, having in them a place and holes made fit for the Eyes to look forth at, that so by them the visive raies may be sent forth. Or else from a *Convulsion* or *Resolution* of the *Muscles*, and then some Disease went not long before.

IV. The *Weakneſs* of *the ſight*, and *Blindneſs*; they differ at leaſtwiſe in the greatneſs of the Cauſes. *It ariſeth* either from the fault of the *Brain* that maketh and yieldeth not a ſufficient ſupply of the Animal ſpirits (from whence likewiſe the reſt of the ſenſes are moſt commonly affected) *or elſe* from ſome thing amiſs in the *Animal ſpirits* themſelves, which ought to be bright and ſhining, thin, and good ſtore of them. And theſe are to be corroborated with thoſe Medicaments uſually termed *Oxydorcicks*; among which there are the water *of Roſemary* with Sal Gem, the water of the diſtillation *of Junipers*, *Nutmeg*, *Myrobalans* thoſe of them called *Chebulæ*, &c. *or elſe* from ſome default in the *Optick nerves*, which are either too much ſtraigtened, and *Narrow*, (from whence proceedeth that we term *Gutta Serena*, (in the which there is not any thing at al to be taken notice of as amiſs in the Eyes, unleſs it be that the *Pupilla* appeareth blacker and larger:) or elſe they *are broken, or writhed together*. Or elſe, laſtly, from ſome fault in the Humors and *Tunicles*; of which enough hath been ſpoken in what went before.

Title, IV. *Of the Diſeaſes of the Ears:*

HItherto hath been ſpoken of the Diſeaſes and things amiſs in the Eyes; in the next place, the Diſeaſes of the Ears are, an *Inflamation*, an *Ulcer*, and *Worms*.

I. An *Inflamation*, or Tumor, *is known* from the moſt vehement beating pain in the part affected, and by a redneſs of color extending it ſelf even as far as the Cheeks and the Temples: there accrew likewiſe and Joyn herewith a Feaver, dotings, and ſomtimes alſo Convulſion fits. It *ariſeth* from Blood that is thin and Cholerick, fallen forth of the ſmal Veins of the Brain into the Membranes of the Ear. The *Cure* is *doubtful*, by Reaſon of the greatneſs and intenſiveneſs of the Symptoms, and eſpecially in ſuch as are young; which yet notwithſtanding (if they live beyond the ſeventh day) are wont to eſcape it. And likewiſe in Infants and little Children, which by reaſon of the quickneſs of their ſenſe are the leſs able to ſuſtein and undergo the ſharpneſs of the pain. It *is accompliſhed*, like as in the Cure of other inflamations, only by the way let theſe things be wel obſerved; 1. That the *Cephalick Vein* is to be opened, for Revulſions ſake, 2. That we muſt not eaſily be drawn to make uſe of *Repellers*; but if at any time we do chance to make uſe of them, they are then to be mingled with thoſe things that moderate and aſſwage pain, ſuch as are Womens Breaſt-milk, and other the like. 3. That in furthering and promoting of the Suppuration, there ought to be provided a ready and expedite Compoſition of *Figs* boyled in Milk, and wel maſhed and beaten together with *Hogs Greaſe*. 4. That for the *Rupture*, we muſt adminiſter (as that that in this is much approved of) the Juyce of a *ſmal Frog*, with a fourth part of *the Breaſt-Milk of a Woman*. *Leeches* are here ſucceſfully to be placed and applied behind the Ears. It *is divided* into an Inflamation *profound* and deep, in which (by Reaſon of the Compreſſion of the greater Arteries) the beating is ſo much the greater; and the pain (becauſe of the neer neighboured of the Brain) the more Vehement; and which (by Reaſon that Nerve called *Auditorius* is affected) hath very much danger in it; and that which is *leſs Profound* and deep, which is in al Particulars appoſite to the former.

II. An *Ulcer*, which *is known* by the filth and corrupt matter and alſo the blood that iſſueth forth. It *ariſeth* from thoſe things that either pour forth *Pus* or matter, or elſe ſuch as by their acrimony and tartneſs are of a Corroding Nature. It *is Cured* like as other Ulcers. It is *to be waſhed* with warm Wine, in which Roſes and Ivy Leaves have been boyled. It is to be wel and *throughly clenſed* either with Wine wherein betony hath been made ſcalding hot, or elſe with honeyed Water, in which the Root of white Hellebor hath been ſodden, or at leaſt, hath lain until the ſaid water be ſeething hot. It *is divided* ſundry waies. 1. *One* is from an impoſtum broken after the Inflamation. *Another* is from biting and corroding Humors that by their acrimony exulcerate the Ear. *Another* from the filth and impurities of the Ears over long kept in and deteined. *Another* from ſome ſharp and tart liquor from without ſlipt into the Ear, and which thereby gnawing and eating cauſeth an Ulcer; in the Cure whereof we are to have reſpect unto their proper Cauſes. 2. *Another* is Recent, and but new begun; in which (the pain of the Head, and the preturbation of the

ſenſes

ſenſes ceaſing at and after the flowing forth of the rotten filth and Corruption) there is then ſome good Hope of a Cure appearing forth. *Another* is inveterate, and ſuch as very eaſily degenerateth into a Fiſtula, and contracteth a kind of Scurf and cruſtineſs. III. *Another* is Fiſtulous, which is to be known by the oldneſs and long continuance of the Ulcer, the Virulency of the filth, and the Calloſity or hard inſenſible thickneſs of the Fleſh; for which the Wine wherein Frankincenſe or white Hellebor have been boyled, is exceeding good and applyable. *Another* not ſo as the former. IV. *Somtimes* a ſtinking filth floweth forth at the Ears, upon the breaking of an impoſtumation in the brain; and then, there firſt of al iſſueth out great ſtore of the ſaid filth, but then afterward it is ſent forth by ſome and ſome at a time, until that at length al of it be conſumed and waſted; and there went likewiſe before ſigns of the Inflamation of the Brain; and hereunto the Care ought to look, as mainly reſpecting it. *Somtimes* again (without any Apoſtem) there is ſent forth a certain filth that is generated and bred in its Veins; and then, after it hath been once exhauſted it is again and again heaped up as before; and here head purgations are exceeding profitable and uſeful. The *Urin of an Aß or of a young Child*, in which the ſhavings of the wood Guaiacum have laien a good while ſoaking, doth much good if conveyed thereinto. V. *Somtimes*, the flowing of the ſaid filth being ceaſed, al the pain is vaniſhed and gone. *Somtimes* again (there being ſome certain filth and clods as it were of Corrupt blood left deep in the bottom of the Ear) the pain ſtil remaineth; & then we ought *throughly to cleanſe* the impure place with honyed water together with the Gal of a Bul, the Oyl of bitter Almonds, Vinegar wel warmed with the beſt Honey, &c. And this eſpecially in caſe there be Clods of blood.

III. *Worms*, which diſcover themſelves by the corroding pain, reſtleſſneſs, and other ſuch like conjectural Symptoms. How theſe Worms ought to be drawn forth, ſee further in the Practitioners. *They are killed* by the Oyntment of *Capons Greaſe*, and the *Oyl of the Hazel Nut* or *Filberds*, mingled *with two grains* of *Mercurius Dulcis*, and to put into the Orifice of the Ears with Silk: they are killed with the Decoction of Hemp into the part affected.

IV. *Water* fallen into the *Ear* is again drawn forth by infuſing Oyl thereinto.

Ticle, V. *Of the Symptoms of the Ears.*

Chap. 1. *Of Pain, and Deafneſs.*

THe Symptomes of the Ears, are, *Pain*, *Deafneß*, *Tingling*, and a *Hardneß of hearing*, together with a miſtaking therein.

The *Pain* needeth no ſigns: in Infants if the part be but touched, it is then diſcovered by the moan and complaint that is made. *It ariſeth* from Cauſes diſtending the Membranes encompaſſing about the Cavity of the Ear, and endued with an exquiſite ſenſe. The *Cure* hereof is ſomwhat *doubtful*, if it infeſt and annoy thoſe that are young and tender; if in thoſe that are declining in yeers it be accompanyed with frequent Relapſes; and if it abide and keep its reſidence in the deeper part or bottom of the Ear. *It is performed* by Anodynes, and if it be Vehement and intollerable, by thoſe Medicaments that ſtupefie. Among theſe are the green *Leaves* of *Tobacco* moyſtened either with a ſpecifical and proper Water, or at leaſt with Rue Water, and ſo applied, together with three grains of *Opiate Laudanum*. Thoſe things that are applied externally ought to be gentle, leſt that the pain be exaſperated and Augmented.

The *Differences* are taken eſpecially from the Cauſes.

I. *One* there is from Externals, as to inſtance, from ſomwhat fallen thereinto from a Wound, &c. which are al to be known by the Relation of the ſick perſon. *Another* there is from Cauſes internal; to wit, a *Diſtemper* either without or with matter; and this either cold, (in which the *Juyce of Onions* with ſome kind of liquor is very helpful) or elſe hot, in which the *Breaſt-Milk* of a *Woman* together with the Juyces of cooling Herbs do much avail and profit: a *Wind*, for the which thoſe things are uſeful and proper, which in the following diſcourſe touching the noiſe and ſound in the Ears, remain further to be ſpoken of: from an *Inflamation*, of which enough hath been above ſaid: or laſtly, from an *Ulcer* and corrupt matter, of which like-

wise sufficiently in the same place.

Deafness is an Abolition of the Hearing, differing from that we cal *Barucoia*, or Hypocophosis, (in the which a man not without much difficulty heareth and perceiveth founds although at a Just and meet distance) only in regard of the greatness and intensiveness of the Cause. *It ariseth* from the default of those things that concur to the constitution and perfection of the Hearing, and 1. Of the *Brain*, in that it either produceth no Animal spirits, *or else* doth not transmit them, by Reason of some peculiar Disease. II. Of the *Auditory Nerve*, which hath no passage or conveyance for the said spirits, *either* by Reason of some thing amiss in its very frame and formation; (and hence for the most part those that are deaf are likewise dumb; and this kind of Deafness is altogether incurable) *or else* by means of some obstruction, thickness, &c. III. Of the *Animal Spirit* it self, which *either* is not at al generated, by reason of some extraordinary great distemper of the Brain; *or else* is abolished, by reason of the extream straightness and narrowness of the passages: *or otherwise* it passeth not through, by Reason of somthing amiss in the Nerve: *or else* it is but very little, and that likewise over thick and impure, by Reason of the Ambient Air, or from other Cause. IV. *Of the Inbred air*; which *either* faileth, (to wit, by Reason of a wound, or an Ulcer, &c.) and passeth forth; dissipated and Scattered by noises and sounds, the contusion of the Head, or a Vehement affect of the Brain; not restored and made good again, by Reason of a fayling and want of Nourishment: *or else* it is impure, either from some matter, sent thither from the brain, or from elswhere. V. Of the *Auditory Passage*, which *either is* formed amiss. *Or else* stopped, and that *either* but in part, and then there is only a diminution of the Hearing; *or else* wholly and altogether, and hence it is that the external sound is not at al perceived, but then there is another new one produced by the Air left remayning there; *or else* from things External falling or sent thereinto; *or otherwise* from internal Humors, filthiness and impurities, Ulcers, &c. *Or else* it is condensed and thickned, by an Inflamation, some smal Tumor or rising, &c. *Or else*, lastly compressed and thrust together, by Reason of some fracture of the Bones. VI. Of the *Tympanum* or drum, which may be broken, loosened, rendered thicker or drier, extended, and otherwise infested by an inflamation arising about or neer unto it. VII. Of the *three little Bones*, which either are not rightly formed, or else are moved out of their place. And yet notwithstanding *most frequently* from a *Pituitous* and Flegmatick or Cholerick humor, which happeneth in acute and violent Feavers; and sometimes it discovereth that the matter is carryed forth unto the exterior parts. In the *Cure* hereof we must see and look wel to it, that the Medicaments be applied Warm; that there be no new remedies laid to, until after that al the filth and *Impurities* be throughly *cleansed* and wiped away; that there be never more than three drops conveyed in at once; that we be not over forward in tampering with those things that are *Viscous* and Clammy; and the sick person lie upon that *Ear* that is sound and wel: and lastly, that there be care taken of the Head. There are here commended, the destilled Water of *Carduus Benedictus*, the Leaves thereof being twice infused in the Glass Vessel; the Juyce of an Onyon wel soaked in the spirit of Wine, and then roasted under the Embers; the Juyce that is pressed forth of *Ants Eggs*, or the destilled Water *of the same*; the *Gal of an Hare* with a like proportion of Virgin Honey, and such like; of all which you may see further in *Petraus*, and *Hartmannus*.

Chap. 2. *Of the Noise or Ringing of the Ears, and thickness of Hearing.*

THis Tinnitus or Ringing noise is Defined to be a Preternatural sound in the Ears, made and perceived in the instrument of hearing, or else in the Cavity of the Head bone, arising from Vapors, first shut up therein, and then moved.

In this Affect there is no need at all of *Signs*.

The CAUSE is conjectured to be that which they term *Pneuma Physodes*, as it preternaturally moveth up and down the inbred Air. Now this indeed *ariseth*, 1. *Either* of it self, *or* otherwise by the Consent and agreement of other parts, to wit, the Spleen, the Liver, the Womb, the Stomach, &c. And then there are present certain signs of those parts affected. 2. Or else from *External Causes* exciting and raising up Vapors, to wit, the extream cold or over great heat of the Air, overmuch

overmuch feeding, and fulneſs either of food or Wine, from whence Crudities are heaped up together in the Head; from the north wind blowing immediately after the South wind, which is very eaſily removed; from frequent ſmiting upon the Head and Temples; which is very difficultly Cured, in regard that (the Humors by Reaſon of the pain flowing together unto the Organs of hearing) it is wont to turn into a deafneſs. Or *elſe* from *Internal Cauſes* that ſend forth the very ſame; and this 1. By *Breaths* and blaſts that are *over heating*, and filling forth that little Artery that runneth under the Ear; and *then* the Diſeaſe is wont to be of long continuance: and here we are to deal with thoſe Remedies (whether Decoctions or Juyces) that both cool and moiſten. *Opium* may likewiſe in this caſe be adminiſtred, but then it muſt be with very great caution. 2. From a *Humor Flegmatick* and cold, and then the Malady began by little and little, & from leſs to greater; and returneth likewiſe at ſome certain ſeaſons and by intervals; the noiſe or ſound is cleerer and more diſtinct than ordinary; and laſtly, there were ſome Cauſes of the ſame that went before. In the *Curing* hereof (general Remedies being evermore premized, and taking the firſt place) we are to act and operate by ſuch things as attenuate and diſcuſs, (which ought to be applied in the morning, and before Supper;) as namely, the Vapor of *Vinegar* together with an *Oxe Gall*; the Secret Remedy that is Compounded of thoſe *little Worms* that lie *betwixt the wood and the bark of the Oak Tree*, and the Oyl of Rue, and that Oyl likewiſe known by the name of *Olium Caſtinum*; (ſee further hereof in *Petræus*:) the prepared *Gal* of the fiſh *Lucius*, or the Pike, (as we commonly cal it) and the *Fume* or ſmoak of the Herb *Mercury*. 3. From a *Cholerick Humor*, and then it chanceth in Feavers; it alſo ſeizeth the Patient either Symptomatically or Critically; and ſomtimes it is diſſolved and vaniſheth of its own accord; and ſomtimes again not until after a Cholerick flux of the Belly. 4. From filth and *Impurities*, which ought to be waſhed forth with the deſtilled Urin of an *Aſs or a little Child*, in the which there hath been firſt wel ſoaked a fit quantity of the *Wood Guaiacum*, a due proportion of *Caſtoreum*, and a little bundle of wild mints. 5. From an *Apoſtume*, which diſcovereth it ſelf by its own ſigns.

Thickneſs, as we term it, or hardneſs *of Hearing*, (otherwiſe called *Paracouſis*) is then, *When the hearing preceiveth its objects very confuſedly*. And *this is Cauſed*, *either* by an Ulcer not rightly cleanſed and conſolidated, when as the Windy Vapor being driven through the Arteries by its impetuous violence offendeth the hearing, *or elſe* in Feavers, Vapors being lifted up into the Head, and then poured forth into the Ears. *Or elſe* without any Feaver, when there is a hot Evaporation continually and without any intermiſſion exhaled and drawn up into the Head from the impure Entrails.

Title, VI. *Of the Diſeaſes and Symptoms of the Noſtrils.*

Chap. 1. *Of the Ulcers of the Noſtrils, as alſo of Ozæna, and Polypus.*

THe Affects of the *Noſtrils*, are, *Ulcers*, *Ozæna*, *Polypus*, the *Hemorrhage*, *hurt of the Smelling*, *Stuffing thereof* by a Rheum falling down from the Head thereinto, and *Sternutation* or Sneezing.

1. The *Ulcers of the Noſtrils* happen ſomtimes from a blow, a Contuſion, a fal, a wound, and other Cauſes that are evident, and ſomtimes from the Acrimony of thoſe things that paſs by them, as Salt Flegm, &c. *They are known*, divided, and Cured, like as are other Ulcers, accordingly as we have ſhewn in the firſt Book. The principle *Difference* is that whereby they are divided into Ulcers *Recent* and newly begun, and thoſe that are *Old*, as having been of a long continuance. *Recent* Ulcers are known from hence; that they very frequently iſſue forth a ſmal quantity of blood, and that more eſpecially when they are hard touched upon, and thereby Irritated; and that the Noſtrils are by this oftentimes moyſtened: and that if they be ſuffered and let alone; they are then over grown and covered over with a dry ſcurf and cruſtineſs and that moſt uſually of a black color, which ſomtimes falleth off upon the ſtrong and Violent cleanſing of the Noſtrils by blowing of them.

II. That

II. That that is *Old* and inveterate, and now become a putrid ulcer, is called *Ozena*. It *is known* from hence, that from it there falleth off a more and filthy cruſtineſs, and likewiſe that there iſſueth therefrom a kind of ſnotty filth, of a very il and offenſive ſavour; inſomuch that then the ſick perſon is himſelfe offended with the ſtench thereof, and is likewiſe very noyſom and offenſive unto al thoſe that are neer about him by the contagion of a foul and ſtinking breath; and that, if the mallady be of long ſtanding, the wings (as we cal them) of the noſtrils, or that that ſtandeth betwixt them, or the other tender and ſoft bones of that place are eaten through and putrefied; and the pallate alſo being eaten through is oftentimes perforated; and this eſpecially chanceth, if it hath the reſemblance of a Canker, or be contracted and cauſed by the venereal and foul diſeaſe. It *hath its original* either *from externals*, to wit, ſuffumigations from Mercury and Cinaber inconſideratly adminiſtred: or elſe from *internals*, to wit, ſharp and corroding humors, (and which happeneth in the french pox) ſuch as are extreamly mallignant. It *is Cured*, I. By the *adminiſtring of Univerſal* or general Remedies, that ſo new affluxes may be turned away from the head. II. By the *Evacuation* of the *Head* by Gargariſmes, Maſticatories, &c. and the ſtrengthening thereof by external and internal Cephalicks. III. By the, 1. *Deterſion* or wiping and clenſing of the ulcer, either by the Juices of *Milfoil*, *Horehound*, *Betony*, with honey of Roſes; or by *Alum water*; or by the *green water* of Hartman, before which the mollyfying and ſuppling of the Cruſt by the vapours of emollient herbs ought to be premized, and firſt made trial of. 2. by the *Excication* and drying of the ſaid ulcer by the vapour of the refuſe and droſs of fire-hot *iron* be ſprinkled with red wine; by the ſuffumigation of *orpiment* (commonly called in the ſhops *Auripigmentum*) *Cinnabar*, *Benzoin*, *ſtyrax Callamite*, and *Cloves*, al together throughly mingled one with the other, the noſtrils being firſt ſtop't at their roots, leſt that otherwiſe the brain ſhould chance to be ſmiten and hurt. 3. By *Conſolidation*, with the Trochiſques of *Rondeletius*, &c.

III. *Polipus is a fleſhy excreſcence in the Noſtrils, hanging thereat by certain thin and ſmal Roots or ſtrings, and now one while hanging before out of the noſtrils, and then as ſoon again deſcending unto the Palate,*

It is known by this, that this ſaid fleſh is looſe, thin, ſoft, and of a various color that at ful of the moon it groweth exceedingly, and about the change or new moon it becomes altogether as flaggy and ſmal in appearance, &c. *It hath its Riſe* from viſcous and Clamy humors; and cheifly from flegm mingled with the blood, which falling down from out of the brain unto the exulcerated noſtrils ſticks faſt in the Ulcers. (The *Cure* is by al means to be haſtened, leſt that it turn into the Cancer. It *is accompliſhed*, either by Chirurgery, or by cutting it off; of which ſee further in the Practical Authors. Or elſe by *Pharmacheutick*s or medicinal remedies; and among them (univerſal and general medicaments being firſt premiſed) about the new of the moon, there are to be adminiſtred, either the *oyl of vitriol* uncorrected dropt into wooll, and (after the fleſh ſhal have been ſcarrified) ſo applied unto the part affected; or elſe rems of the *Gentian Root*, by the preſcript of *Hartman* or *Joel* his *liniments*. It *is divided* after a twofold manner. I. One is *ſoft* and *white*, which being void of al pain is the more eaſily and the ſooner cured. Another inclining ſomwhat unto a *Reddiſh* color, which is more difficult in the curing. Another *Livid* or black and blewiſh, which refuſeth by any means to be cured, and ſoon degenerateth into a cancer. In this affect there are commended the *yolks* of new laid eggs beaten together in a leaden morter even unto a blackneſs, and then made up into the form of an unguent, with one ſcruple of *Camphire*. Another *hard*, in which Emollients in the form of a fomentation ought to be premized. II. Another is *profound* and deep, which in regard that it is neerer unto the brain, is therefore withal the more dangerous. Another ſuch as is to be *diſcerned by the eyes*, and hath its exiſtence and being ſomewhat more outwardly.

Chap. 2. *Of the Hemorrhage, or Bleeding of the Noſtrils.*

THe Hemorrhage is an immoderate excreſion (and in the whole kind thereof beſides and above the courſe of nature) of the blood by the veins of the noſe, the ſaid veins being divided, rarefied, or opened.

The thing we are now treating of is to be underſtood of that hamorrhage that is *Symptomatical*, (and not of that which is meerly *Critical*) which is cauſed in Feavers by the ſtrength and vigor of nature, with ſigns foregoing of concoction,

coction, and a Criſis on that day the Judgment is to be made; and which diſchargeth and terminateth the diſeaſe.

The SIGNES of this Affect are of themſelves ſufficiently manifeſt. *It is foreknown* by that *Anarropia* (as they term it) or tending upwards of the humors unto the ſuperior parts; the which is ſignified by the pain of the head and neck, the heavineſs of the temples, the dimneſs of the Eyes, the extenſion or ſtretching forth of the *Hypochondrium*, involuntary tears, difficulty of breathing, &c.

The CAUSES are, whatſoever it be that can open, divide, or rareſie the veins of the noſe; of al which we ſhal make mention in the differences.

The CURE is *difficult* if it be ſo immoderate and immeaſurable, that in cholerick bodies (the Choller inflaming and burning the blood) the face becometh of a Citron or orinqe color; in Flegmatik bodies, (the flegm being multiplied; of a leaden color) and in melancholly bodyes, of a black and duskiſh color; and if it flow forth to the quantity of four pints therof; if it befal ſuch as are Phlegmatick and melancholly, in regard that they are more cold thereby, than are the ſanguine or Chollerick; if it affect thoſe that are of an high and red color with a certain kind of pain in the head; if it doth not terminate and put an end to that diſeaſe wherein it happeneth, and that a chilneſs and ſtifneſs follow thereupon; becauſe that the body being exhauſted of ſpirits, is extreamly cooled and chilled, and by this means breedeth diſeaſes that laſt and continue a long while. It is *not at al to be attempted* in thoſe perſons that in a burning Feaver are afflicted with pains in the head, together with aches in the neck, and the whole body; and where there is preſent a weakneſs with a kind of trembling; in regard that this putteth an end unto the diſeaſe; in thoſe whoſe monthly Courſes fail them; in thoſe that are afflicted either with deafneſs, or the diſtorſion of the back bone and a difficulty of breathing, or elſe with a ſtrong pain in the inferior parts, al other things being thereunto anſwerable and correſpondent. It is very *doubtful*, if in the affects of the Liver it flow from out of the left noſtril, and in the affects of the ſpleen out of the right noſtril; and eſpecially if it be accompanied with a ſweating of the Breaſt or head; if it happen to thoſe that are Feaveriſh, and that thereupon when they begin to Recover the belly is humectated, and becommeth overmuch moyſtned in regard that the nattural innate heat being debilitated, a dropſie is very likely to follow thereupon; if it happen to be attended with weake, faint, and (as we cal them) cold ſweats, and therewithal a kind of chilneſs, becauſe that hereby is ſignified and ſhown an extream and overgreat diſſollution and ſubverſion of the Spirits; if in an accute diſeaſe it hath together with it joyned a quick and ſuden motion of the eyes, a turbulent and troubelſom ſleep, & frequent watchings or want of dueſleep; it in acute and burning Feavers, on the fourth day, there iſſue forth drop by drop a thick, groſs, and black blood, together with other Symptoms becauſe this argueth & evidenceth the imbicility or weakneſs of nature; and laſtly if ſuch a bleeding chance to be in diſeaſes of long continuance. It is wrought and *accompliſhed*, I. By *Revulſion*, by opening of the median vein (provided that the ſaid veneſection be moderate, and as often as there ſhal be cauſe, Repeated) on that ſide the noſtril is of, out of which the ſaid blood floweth; as alſo by cupping-glaſſes applied unto the hypochondria, if the blood be not naught, by Frictions, &c. II. By thoſe *Medicaments that ſtanch* and ſtop the Hemorrhage or *bleeding flux*; and thoſe either ſuch as are *Cooling*, or *aſtringent* and binding, or of an *agglutinating* Nature; or elſe laſtly, ſuch as *act* and operate by a ſecret and occult quallity; and theſe aforeſaid medicaments either to be outwardly applied, or elſe drunk in and taken down inwardly. In the number of thoſe Remedies that are *internal* and to be taken into the body, the cheif (that we know of) are beleeved to be theſe, *Sperniolæ compoſitum* (or the compoſition of frogs) mentioned and preſcribed by *Crollius*; three or foure grains hereof to be adminiſtred in the water of the herb *ſhepards pouch*; *Crocus Martis*, with the Juyce of Quinces, and ſome few grains of Opiate Laudanum; the *Syrup* of *Coralls* of Quercetan, in a Chalybeat water; the *Extract* of *Crocus Martis*, three grains therof with plantane water; the *ſperm* or ſeed of *frogs*, collected in the ſpring time, dryed, and then drunk with wine. Among the *External* Remedies, the unguent of *Quercetane*, compounded and made of *Crocus Martis* beaten into a moſt ſmal pouder, and *Crocus Veneris*, of each two ounces, theſe wel mingled together with the oyl commonly known by the name of *Oleum Vici Pomarum Symplicium*; the water of the *ſperm of Frogs*, with a little *Champhyre* and *ſugar* of *Saturn*, put round about the neck; *Argilla furnacea*, that is to ſay, Clay baked in an Oven, and wel mingled

mingled together with strong vinegar, like unto a pultise; and applied after the same manner; *Asses dung*, or *swines dung* dissolved in Rose vinegar, and then put up into the nostrils; the shavings or Fragments of *Fungus Betulinus* (the mushrom or toad stool of the Beech tree) the *Root of white Succory*, dig'd up about St. James tide, at noon day (when the sun is at ful south) and chawed betwixt the teeth. As for the *Magnetical Curing* hereof, by Vitriol, see further in *Beccerus* in his *Medicus Mycroeosmus*, in the Chap. of the blood, &c.

The Hemorrhage is *divided* in a threefold manner; from the Causes, from the blood, and from the places from whence the said proceedeth.

I. *One* is from that we cal *Anastomosis* (or an opening of the orifices of the veins) which either is caused by the *abundance of blood*; (and *then* the face is red, the veins strut and are distended, and a ful feeding went before: and here venesection hath its place; the head is by no means to be washed or so much as wet with cold water, lest that the blood being there dereined, something that is worse follow upon it; neither is there any linen cloth to be wet in cold water, and at the first begining of it to be cast about the neck, lest that the ways and passages between the brain and the heart should by this means be shut up) *or else* it is caused by the *acrimony* of the blood, and the *thinness* thereof; (and then there ready at hand signs of a Cacochymy) and in this case we are to do the work with those things that incrassate and thicken, as *Bole armonick*, *Dragons blood* (in the shops termed *Sanguis draconis*) and such like.) *Or else* it is caused by the irritation of the facculty, (and then the very same things as before, are present and ready at hand) *or else* by the *weakness* of the *said* faculty; and then there is blood issuing forth by intervals, but it is not much; and some disease weakening the liver went before; and therfore the Cure ought likwise to be prosecuted with special regard had unto the same.

Another is from a *diairesis* (as we term it) or a division of the veins, by some *sharp* corroding *humor*, and like by other means; and then the blood issueth forth in a far greater abundance; or there went before some violent Cause; or else lastly there are present certain signs of a Cholerick Cacochymy.

Another is from that we cal diapedesis (or as we may so term it, a passing through by leaping) and then the blood that issueth forth is but very little, &c. See more hereof in the first Book.

II. One is of the *Arterial blood*, which is hot, somwhat red, subtile, leaping forth with a froth, and with violence. Another is of the *vein blood*, and this is Thicker and Blacker.

III. One is of *blood* issuing and passing forth *out of the veins of the Brain*; and then there went before a pain of the head; and the flux is not easily stanched. Another is of the same blood leaping or starting out of the *nostril veins*; and then the contrary of what was said touching the former happeneth and appeareth.

Chap. 3. *Of the Hindering and Hurting of the Smel, Gravedo, (or Stuffing) and Sternutition (Or Sneezing.*

THe principal *hurt* of the sence of *smelling*, is the *abolition*, or the *diminution* thereof, which differ only in degrees, and in the greatness of their Causes. And this is *caused*, 1. *Either from a distemper of the brain*, which *either* possesseth the *fore part* thereof, (and *then* the Tast likewise by reason of the branches of the third pair of nerves of the brain, Forming the tongue, is abolished; the voice is loud and shril, and no way to be found fault with; the Cure here, is to have an especial regard unto the distemper) *or else* it possesseth and resideth in the process of *those nerves* that constitute and frame the organ of the smelling; and *then* there is no hurt at al to be perceived in the brain or in the other senses. *Or else* it is caused by the *narrowness* and streightness, and that too either of the *Brain*, (and then there is present and sensibly to be felt a heavines in the head; and here we may operate by errhines, and yet not toomany of them neither; and here likewise sternutatories are exceeding useful and profitable) *or* otherwise of the *Processes* of the *brain*, or of the *nose within*, and the *Ethmoid Bone*; and then the voice and respiration are vitiated, and the wonted excrements restrained and kept in. The smelling is somtimes *totally abolished*, if the Phlegm by heat be baked and hardened at the holes and enterances of the aforesaid bone, which chanceth unto such as being troubled with the pose or distillation called *coriza*, heedlesly and without any consideration go into baths. In these cases that that cheifly deserveth

deserveth commendation, is, the Root of *Gentian* fitly put up into the nostrils; *Castoreum* wel soaked in vinegar, and afterwards sweetned; the *Oyl* of *Nightshade*, the *Errhin* of Zacutus, in his seventh Book. 15. Chap. P. 517. &c. touching which we have before spoken in the Chapter of Cactarrhs.

II. Gravedo *or* Coryza *is a defluxion of the Excrements of the Brain* (*being crude and thin like water*) *unto the nostrils, which is accompanied and attended with a frequent sternutation or sneezing.*

This Malady is wel enough *known*, and by it self discovered. *It ariseth* from the distemper of the brain, either hot, or cold: concerning which enough above.

III. *Sternutation is a violent and involuntary expulsion* (*by the nostrills*) *of the flatulent windy spirits, and sharp vapours offending the Brain.*

It is done with a *Loude voice*, as wel because the Windy spirit breaketh forth altogether at once; as by reason that it forceth its passage through the streight & narrow holes of the nostrils. *It ariseth either from external causes*, (and then the nostrils are to be supled and gently stroked with the oyl of roses, or milk) *or* else from *internal humors* and vapours brought thither; touching which see further in their proper Chapters: but is wont for the most part, and too commonly to be neglected by the Physitians, unless in Plethorical bodies it happen to be accompanied with a distillation in the very first beginning of the disease. The *little veins* in the greater angle of the eyes, and that is nigheſt unto the nostrils being *forcibly pressed together*, do forthwith stay and stop the frequency thereof.

Title VII. *Of the diseases of the Tongue, and the Symptoms thereof.*

THe Affects of the *Tongue* are, a *Tumor* or swelling, *Ranula*, *a blackness*, a *Palsy*, a stammering, an *Aphony* or Speechlesness, and a *hurting* of the *Taste*.

I. The *Tumor* ariseth either from *External Causes*, as the anoynting thereof with hydrarge or quicksilver, the eating of poisons Mushroms, &c. and then, those things that purge are to be eschewed, and not medled withal; the Tongue is to be washed and cleansed with the decoction of *Scabious*, and plantane, together with a little treakel, and honey of Roses. Or else from *internal causes*, to wit, an afflux of a matter *hotter than ordinary*, to wit, blood or Chollor; (and then, for the most part an inflamation is excitted) or else of a matter that is *colder* than usually; and then, the tongue waxeth white, and very much flegm floweth fourth; or else of a *poysonus* mater, as in the French disease, and this carryeth its signs along with it; or else the maater is *corrupt and cankerous*, and then the malady is almost incurable; and a putridness, or a flux of blood (in tongus that are quite eaten through) happening at the Root of the tongue, at length the persons thus affected dye thereof. For al and each one of such like patients aninunction with the *oyl of vitriol* and honey of Roses is very conducible; as likewise the opening of the veins under the tongue.

II. *Ranula is a swelling, in shape resembling a frog, which now and then ariseth and groweth out under the tongue, out of that soft flesh on which the tongue lyeth, and unto which it is tyed and fastened as with a chain.*

It is known by the bare looking upon it. *It ariseth* from a viscous and Pituitous blood flowing thither, and exciting a soft and loose swelling, that being opened yeildeth forth a kinde of snotty filth like unto the white of an egg. *It is cured*, either by topical remedies, (among which the *oyl of vittriol* with the hony of Roses, is very prevalent and avaylable, or else by *Chyrurgial Operation*, which ought to be seconded with liniments of torrefied *Tragacanth*; together with the *Hermodactyl* root, and the white of an egg; or with gargarismes; or with both together.

III. *A Blackishness with a scabbedneß and clefts sometimes* ariseth from hot and fiery vapours and Exhalations, and this especially in burning feavers. It ought to be washed with the *Milk of a Goat*, or that of a *Bitch*; and also to be cherished with the Mucilage of the seeds of *Psylium* or fleabane, and *quinceseeds*; and after al to be washed with refrigerating waters, together with the salt or *stone prunella*.

IV. A *Palsie* hapeneth unto the tongue; and that either unto the whole tongue, (and then those nerves that are derived from the seventh Conjugation of the Brain, neer unto the place where the spinal marrow hath its beginning, are wholly impeded and stopped; and there is also very great feat of an Apoplexy impeading, and now nighe at hand) or else,

only unto a *part thereof* (whether the right or the left) either by the default of the Nerves, or the Spirits. In the *Curing* hereof (Universals alwaies premised) we commend to you the *Salt of Margarites*, ten grains thereof in Malmesey; the *Oyl of Rosemary*, with the little rols of *Diambra* or *Diacastoreum*; the *Water or Spirit of Black Cherries*; the rubbing of the Tongue with *Tobacco Leaves*, *Rocket Seed*, *and Treacle*. See likewise the *Electuary* of *Solenander*, in his Consultations.

V. *Stammering* and *Stuttering* infest the Party, either *from Drunkenness*, or from an *ill Composure* and frame of the Tongue, or from the *shortness*, and *excessive thickness* thereof; or else from its *Immoderate dryness*, or overgreat Humidity and moisture. It is not to be taken away, and Cured, but with much difficulty.

VI. The *Aphony*, or Speechlessness, ariseth either from a default and error in the natural *Formation* thereof; or else from the *Palsie* when it is *Consummated*. *It is to be* Cured like as the Palsie. And for this purpose there is commended the water of *lillies of the Valley*, and of *Lavender*; with the *Blood of a Turtle*, the *Oyl of Anni-seeds*, and the *Spirit* of *Vitriol*.

VII. The *Hurting* of the *Taste* is then said to be, I. *When it is either Diminished, or wholly Abolished*; and this either by the overcooling of those softer Nerves derived from the third Conjugation of the Brain; or else by the affecting and hurting that part of the Brain from whence they proceed and pass forth: there is here to be prescribed the opening of the Vein under the Tongue; as likewise al those things, of which we made mention in the *Aphony* and *Palsey*. II. *When it is depraved*, so that another kind of Savor is perceived; which then happeneth, when *either* the body of the Tongue *or* the Membrane that encompasseth it about, is Replenished with a noysom and foul Humor, that either alone of it self, or else dilated together with the Liquor of those things that are Eaten and Drunk, penetrateth into the Body of the Tongue, and the soft Nerves thereof; and then the Savor is perceived to be, in tast, either Salt, or bitter, or acid and sour, according to the nature and quality of the Exhalation and Humor. And here we approve of the *Rubbing of the Tongue* with the Root of *Zedoary*, or *Gentian*, the *Radish pickled in Salt* Chewed before Supper, and the Mouth afterward washed with Wine, &c.

Title, VIII. *Of the Diseases and Symptomes of the Lips.*

THe Affects of the *Lips* are, *Clefts*, *Ulcers*, *Trembling*, and *Preversion*.

I. *Fissures or Clefts are a solution of the Continuity of the Lips, by overmuch dryness and extension.*

They are known by the view. *They have their Original* from overmuch dryness and extension, as was said before in the definition. *It is Cured* by Correcting the dryness with those things that Humectate and moysten, and by uniting of the dissolved Union. For this purpose we prescribe that *Fat* which distilleth *out of* those wooden *Spoons* used in Kitchings to boyl withal, if they be put neer unto the Fire. They are variously *divided*, I. Some are from the very *Birth*; and these are hardly Cured. Others are *Adventitious*, which are more easily Cured, unless they chance to degenerate into a Cankerous matter. II. Some are from *Causes External*, Cold, heat, the North wind, &c, and then the relation of the Patient wil suffice. In the Curing of them, like as they al must be removed, so ought there to be a regard had unto each particular of them. For those of them that have their originanl from Cold, the *White Pomatum* is excellent good. Others from *Causes Internal*, to wit, I. *Hot Humors*, which are many times devolved from out of the Head, and these bring along with them a kind of itching, and profundity. In the Cure, the matter being Evacuated, fine soft Linnen clouts, wel soaked in the *Juyce of Sengreen*, are to be imposed and laid on them; and if the Chaps or Clefts be somwhat deep, they are then to be anoynted with *Goose Grease*, and *Capons Grease*. II. From *Vapors* which are Hot, Dry, Salt, and Sharp. They ascend up from the inferior parts by the *Oesophagus*, or the great rough Artery called *Aspera Arteria*. They infest wanton lustful Women, from the dryness of their Womb, by

by Reason of the common Tunicle; and they produce Clefts without any heat at al, or itching, or much hardnes, neither are they very deep, or frequent. In the *Cure*, regard must be had unto the parts transmitting. In al of them, the Lip is to be turned inward, and then the mastication or chewing of Mastick being premised, it is to be moistened with the Tongue.

II. Touching the *Ulcers of the Lips*, these things are wel to be noted. I. That al of them *do proceed* from Humors that are sharp, Cholerick, and Serous or Wheyish, either from adustion and putridnes, or else from their admixture, II. That somtimes they are covered over with a crustinels, and somtimes running. III. That somtimes they are *Critically* thrust forth in Malignant, and likewise in other Feavers; and these are easily Cured of themselves, and they design the end of the Feaver; if they be together with the Natural strength and Vigor much impayred, they then threaten death: and somtimes they are thrust forth *Symptomatically*, and that either by Reason of a Contusion of the Lip; or by reason of Poysons; or by Reason of Humors, as in the French Pox. In the *Cure*, Medicaments are most fitly and best of al administred about the time of the Patients sleeping. Al sharp meats ought carefully to be avoyded.

III. The *Trembling* of the *Lips* proceedeth, either from *External Causes*, to wit, 1. Cold, with a grating of the Teeth. 2. Wrath or Fear, the spirits being thereby either dissipated, or made to retire into the more inward parts. Or else from an *Internal Cause*, as from the weakenning of the Nerves in some extraordinary great affect of the brain; in the Nauseousnes of the Stomach, and propension to vomit, from a sharp Humor pulling and twinging; or else from the agitation and disturbance of the Stomach by the consent and agreement of the Membrains thereof, in case of Worms. The Cure must be ordered according to the Causes.

IV. The *Perversion of the Lips* proceedeth from the affect of the *Nerves* of the *third pair*, there being then a Convulsion of the Muscles; and this either *of it self*, from dryness; or else *from the Event*, or when the neer allyed and conjoyned Muscles, (that together and at once lift up or press down some one of the Members) are drawn together and suffer a Convulsion; or else when the Muscles *Antagonistæ* are resolved. It is *deadly*, the strength and powers of the body being extreamly weakned, in Continual Feavers, and when there is a peculiar defect of the Organs. *It is voyd of al danger*, if the powers of the body be strong and vigorous, the actions thereof constant and Uniform, and when the *Metastasis* (as they reason it) or transferring of the Critical Matter unto the Head be accomplished.

Title, IX. *Of the Diseases and Symptomes of the Face.*

Chap. 1. *Of the Opening of the Mouth, Gaping, and Yawning.*

THere belong unto the Affects of the *Face*, the *opening of the Mouth, Gaping, Yawning*, the *Writhing* thereof, and that we cal the *Ptyalism*, or frequent spitting.

I. *The Opening of the Mouth is, when that bone that by Nature ought to have been shut is yet not shut.*

This cometh to pass, I. When the lower Jaw-bone Joyneth and groweth unto the Head; which very rarely happeneth. II. When tumors arise *neer about the Conjuncture* of the Jaw bones, in the inflamations of the Jaws and the Tonsils. III. When the *Roof of the Mouth*, (in the which the Cheek is turned and moved,) *waxeth stiff*, and the Mouth becometh so close shut together, that even in windy ructures or belchings it cannot be widened and enlarged, there being gotten in, and deeply inserted into that Juncture and the bonds thereof a most filthy and nasty humor. IV. When the *Neck is* distended by *Reason of a wound in the Nerves*, because that then the Jaws wax stiff like unto the bones.

II. *The Gaping of the Mouth is then, when the Mouth that by Nature (one Lip falling down and resting upon the other,) ought to have been shut, Gapeth. It ariseth,* 1. *From an il Custom.* 2. From the *Relaxation* of the Nether Jaw-bone. 3. From the *Obstruction* of the *Nostrils*, that so more store of Air may be attracted. 4. From the *ascending* up of extream hot *Vapors*, in Fea-

vets; and then, if there be pains of the Jaws (without any swelling) that albeit they be but smal, yet seem as though they would suffocate and strangle the party, then the mindes disturbance and alienation is portended and threatened. 5. From the *Hurting* of the Memory in the Lethargy.

III. *Oscitation or Yawning is a vehement distention of the Mouth by Halituous and windy Vapors gathered together in the spaces of the Muscles of the nether Jaw-bone, and of the Cheeks, and Exstimulating or provoking the Excretive faculty to do its office by Excretion.* Touching the *Signs*, we need take no great pains to find them out: but indeed, in regard that the Passage of the Ear at that time doth not sufficiently admit of, and give a meet entrance unto the Air, and likewise that the Auditory Nerve is compressed, it hath therefore Joyned with it an hardness or thickness of hearing. The *Cause* is expressed in the Definition. The *Cure* is scarcely to be *Hoped* for, or expected, if it happen in Childbearing. It is somwhat *Doubiful*, if it Relax and loosen the lower Jaw-bone. But otherwise, if it happen without a more frequent occasion, if the matter being widened the Air be abundantly and greedily drawn in, and then instantly excluded and thrust forth again with a loud noise, it presageth Diseases; and it is in very deed the *Preludium* of Feavers, by Reason of the ascent of Vapors from the matter collected together in the lower parts, and there putrefying. It is to be *effected* and wrought, I. By excluding the matter that fomenteth and supplieth the Vapors. II. By the Discussion or Revulsion of the Vapors themselves.

Chap. 2. *Of the Writhing of the Mouth.*

THe Writhing of the Mouth is a distention thereof, proceeding from this, to wit, when either the Muscles of the Face, or the Nerves of the third and fifth Conjugation, or those that descend from the first and principal Vertebræ of the Neck.

The SIGNS are, that one of the Eyes can never be rightly shut; and that the Patient being bid to spit forth, doth it on the one side only: and if there were no other signes, yet this there wil be, that the Party being commanded to laugh, or to pronounce the letter O, can by no means stir or move one side of the Mouth.

The CAUSE is expressed in the definition.

The CURE is so much *the easier*, if this unseemly affect hath no consent or agreement with any other part of the body. But more *difficult*, if it be lengthened out and protracted beyond the sixth month. How the cure is to be *performed* shal be further shown in the differences.

Now it *is divided* in a two-fould manner, according to the nature and condition of the Causes.

I. One is from *Resolution*, which *may be known* by this, that the part affected is loose, and the softer part thereof drawn to that part that is sound; and that the sense in the part affected is very obtuse and dull; that the eye lids in part fal down; that the face is extended without any wrinkles at al, and that it continually inclineth toward the inferior parts. *It ariseth* from the very same causes from which it portendeth a palsy or an apoplexy. It is *Cured* in the manner as a palsey. 1. By *Universals*; where note wel, 1. That before the fourth or the seventh day (unless there be a fear of the before mentioned diseases) we must have no recourse unto the stronger sort of medaments. 2. that a vein is to be opened, first in the Arm, and after that under the tongue. 3. That Cupping-glasses with scarification ought rather to be applied unto the shoulder blades, than unto the first vertebræ, lest that if they be too often imposed on the neck they may haply cause a trembling. II. By *Particulars*, and then Errhines and Apophlegmatismes are of good use. Gargarismes are not to be administred before errhines, lest that the matter be thereby drawn unto the face. Outwardly, let there be inunctions of *Castoreum*. Let the mouth by Ligatures be reduced again unto its natural state. Let the sick person be put into an obscure and dark place, lest that by much light the humors being scattered run together unto the nerves. Let a looking glass be set oppositely before him.

Another from *Convulsion*; which *is known* by this, that the part affected is hard, and for the most part, ful of pain; that the sound part is somtimes drawn unto that extended; that the skin in one part thereof is rugged and wrinkled, and in another extended; and lastly, that there is here present but very little Salivation or spiting. *It ariseth* from the same Causes with the Convulsion. And it is likewise as *hardly cured* (or else *not at al*) if it seize upon both sides of the mouth (we cal it then a

Chymical

chymical (paſme) and be violent & ſtrong; for ſomtimes within four daies, and ſomtimes again (at the furtheſt) within twelve, the matter being transferred untothe head kileth the party thus affected; or if it happen in burning feavers, a pernitious Phrenſy, &c.

II. Another is, *when the Muſcles are affected*; & then the vitious and deformed figure teazeth only that part of the face which the affected muſcle covereth. Another, *when the nerves*, and then, their ſpring-head and *beginning* being *affected*, the Brain is likewiſe affected in the one half thereof; and half the face alſo, together with the whole body, ſuffereth; but if they be *affected in their progreſs*, then the diſtorſion or writhing ſeizeth upon the one half of the face throughout al the parts thereof: when the *third pair* of nerves are affected, (in regard that the ſame part thereof ſtandeth forth by the ſame holes with the moving nerves of the eyes) the eye cheifly ſuffereth: if the fifth pair be affected; then there is likewiſe ſome ſlight hurt of the hollow or inner parts of the Cheeks; but if the *firſt vertebræ of the neck*, then the hurt that befalleth the Cheeks is ſo much the greater; but then the eye (unleſs withal the Temple muſcle, into which the fifth Conjugation ſendeth forth a ſmal branch, be affected) is the more freed from ſuffering.

Chap. 3. *Of the Ptyaliſme.*

A Ptyaliſm is a frequent and involuntary ſpitting and ſpawling, without any Cough or retching, proceeding from a ſuperfluity and over great ſtore of ſpittle.

Our diſcourſe is of that ptyaliſme that is *Symptomatical*, and not of the *Critical*, which freeth the ſick perſon from the diſeaſe he lyeth under.

Of SIGNS there is no need at al. It is termed *involuntary*, the better to diſtinguiſh it from that that is by uſe and Cuſtom; whether it be in concluding of a ſentence in a diſcourſe, or whether otherwiſe, it maketh no matter. It is ſaid to be *without any cough or retching*, in regard that what for the moſt part upon excretion or reaching is caſt up out of the *Thorax* or breaſt, is moſt properly called ſpittle; and that fallivation or ſpawling, that is caſt forth, and commeth away without the ſaid ſtretching or retching.

The CAUSE is an exceſs and over great ſtore of Spittle. For if it be conſidered as it is Naturally in its Mediocrity, ſo it is requiſite, by its mixture to prepare the meat while its maſticated and chewed in the Mouth, for the firſt Concoction; to further and help the ſpeech, and to be the Vehicle of the ſeveral Taſtes.

The CURE (in general) is to be directed towards, and ordered unto the Corroboration of the Tonſils, in regard that it is bred in the aſſiſtent Glandules on both ſides the Tongue, (which they cal Tonſils) by the concurrent heat of the Tongue and the other parts in the Mouth. This is done with the Decoction of the Leaves of *Myrtle*, *Plantane*, and *Alume*, &c. Which are only to be kept and conteined in the Mouth, and not to be Gargarized therewith leſt that thereby more Flegm be attracted and drawn unto the Superfluous Spittle.

It is *divided* according to the Cauſes thereof.

One is from *Cauſes External* increaſing the Spittle, to wit, that dangerous and pernitious anoynting with Quick-Silver, ful feeding upon moiſt meats, and exceſſive drinking. And this ariſeth and ſheweth it ſelf after meals.

Another from *internal Cauſes*, to wit, a wateriſh and Flegmatick Humor; which 1. Somtimes falling down *from the brain* unto the Jaws mingleth it ſelf together therewithal; and then the ſame thing likewiſe is done and hapneth in the Relaxation or looſening of the Columella, the inflamation and Ulcers of the Mouth. The *Cure* is to be directed and ordered according to that of a Catarrh. 2. And ſomtimes that that is heaped up in *the Whol Body* is tranſmitted thither; and this moſt commonly happeneth in Infants. 3. Somtimes it (as it were) ſweateth out of the overmoiſt and empty *Stomach*, and this eſpecially after Chronical Diſeaſes; and then, a regard is to be had unto the purging of the Stomach by *Aloetick* Medicaments, *Frankincenſe*, and *Maſtick* taken in wine, Meats wel ſawced with Muſtard, and *Diagalanga*. 4. Somtimes it proceedeth out of the *Inteſtines*, as in Worms; from the Spleen, as in thoſe that are afflicted with the Scurvy; out of the *Breaſt* and *Lungs*, &c.

Title,

Title, X. *Of the Affects of the Mouth.*

Chap. 1. *Of the Aphthæ, or Exulcerations of the Mouth.*

AFfects of the *Mouth* properly so called, are, the exulcerations termed *Aphthæ*, and *Fætor*, or the stinking of the Mouth, and the Breath.

The Aphthæ, are certain Hot and Fiery Exulcerations in the highest part or Superficies of the Mouth that have in them somthing of heat.

There is in this case no need of SIGNS; they are sufficiently known by the sight alone.

The CAUSES, as wel External, as internal, shal be expressed and explained in the Differences.

The CURE is performed by *Repulsion*; in the beginning with astriction, and in the progress with discussion; but by *Discussion* alone, and *Maturation*, if they incline and tend toward a suppuration; and here *Milk* boyled, or the Decoction of *Raisons of the Sun*, is to be made use of, and it is known to be of singular benefit.

They are divided after a various and Different manner.

I. Some of them are from an *External Cause*, to wit, an anoynting with *Quick Silver*, Meats of a sharp quality corrupted in the Stomach; the eating of Mushroms or Toadstools; and the Retention of the *Menstrua* or monthly Courses, &c.

Others from *Internal* Causes, to wit, 1. *Ill Humors* either generated and bred there, or else transmitted thither from some other place, and then they resemble in color those Humors they proceed from. Those that take their original from Flegm are perceived to be less hot than the rest. Those from Choler for the most part are inflamed. Those in little Children, if they be black, and have a kind of crustiness over them, are pernitious, destructive, and deadly. These require Universal Remedies. 2. *Vapours*, that are sent forth either from the whol body, or else from part thereof only, and that more especially an over hot liver. They easily by their Acrimony offend and hurt the uppermost parts of the Mouth, by Reason of their softness and tenderness: and in feavers they very frequently produce such a like Disease.

II. Some are *Recent* and new, which are the more easily Cured and healed; others old and *Inveterate*, and these not without much difficulty; and this, as wel by Reason of the quick sense and apprehensiveness of the part, which is further Irritated by sharp and piercing Medicaments as that the Medicaments are diluted and vitiated by the Spittle; and lastly as by Reason of the speedy hastening of the Malady (being in a place hot and moist) unto a Rottenes and Putrefaction.

III. Some of them are *Sordid* and foul, which may be washed with *Sugared Water* wel mingled with the Oyl of Vitriol. Others leaving behind them their *Sordid and filthy Ulcers*; and then the *Green water of Platerus* is fitly and properly to be administred, and this is to be followed by the washing of the Mouth with Plantane Water.

IV. Some of them do *only infest* and annoy *the uppermost Skin*, and from thence by degrees creep along into the gums, pallat, the sides and Root of the Tongue. Others *Penetrate* and pierce *more deeply* and eat quite through the Palate and the flesh of the Tongue; especially in infants; in regard they have the softer and more tender bodies. There is here to be commended the Decoction of *Savory* and *Betony* in Wine, if the Mouth be throughly washed therewith; as also the Water of *Nuts* destilled with Vinegar, and a Spunge therein dipt, and so applied.

V. Some are in *Children*, which most usually proceed from the Breast-Milk when it is hot, sharp, and Salt; (and these are to be Cured with the *Syrup of Mulberries*, together with Honey of Roses, or *Oxymel*, or honyed Vinegar. Others in such as are Older, and grown up to their *perfect state*; and these require and cal for Universals.

Chap. 2. *Of the Stinking of the Mouth.*

THe Fætor *or Stinking of the Mouth is the offensive Unsavorines of the Breathing, proceeding and arising from a stinking Vapor passing out of the Mouth.*

There

There is no need of *Signs*.

The Chefe and neereſt *Cauſe* is a *Vapor*, which proceedeth, I. From Meats either ſtinking and unſavory in their own Nature, as Garlike, Onyons, &c. And the ſtink ſoon, and of its own accord, vaniſheth: or elſe ſuch as are corrupted in the Stomack, or the void places betwixt the Teeth. II. From the Excrements of the *Inteſtines*, when the inferior Orifice of the Stomach (by which it openeth it ſelf into the Inteſtines) is not cloſely ſhut; which befalleth common drunkards; and then in this caſe, *Cloves*, *Nut-Meg*, *Zedoary*: the *Roots* of the *French flower-de-luce*, Rinds of Citron, &c. Are to be held and kept in the Mouth. III. From *ſtinking Humors*, either in the Stomach; and then they are beſt of al Evacuated by Aloetick Remedies; or elſe in the ſtrainer bone, if at any time corrupted; or elſe in an Ulcer, and wound, of the Lungs, the Gums, or the inteſtines. IV. From *Worms*, having their reſidence in the Inteſtines, &c.

Title, XI. *Of the Diſeaſes and Symptoms of the Teeth.*

Chap. 1. *Of the Diſeaſes of the Teeth.*

Article, I. *Of the Corroſion of the Teeth.*

THe Diſeaſes of the Teeth are, *Corroſion* and *Mobility*.

The Corroſion of the Teeth is a diminution of their magnitude from Cauſes that Eat through them, ſo that they are broken, fal forth by piece-meal, the ſaid diminution or corroſion now and then producing Fiſtulaes.

The SIGNS are eaſily diſcovered, both by the touch, and by the ſight thereof; and for the moſt part, thoſe that have ſuch Teeth, when they are faſting ſend forth a ſtinking and Unſavoury breath or Vapor.

The CAUSES of Corroſion are, either *External*, Womens Fucuſſes or Face paintings made of *Hydrarge*, &c. Al ſweet meats more eſpecially Sugar (as Experience teſtifieth) food taken in too hot, or elſe meats that are overcold taken in immediatly or in a very ſhort while after the hot Food. Or elſe they are *Internal*; to wit, 1. *Sharp Humors*, which for the moſt part run down from out of the Head; and then in the *Cure*, we ought ſo to proceed, that in the firſt place the Flux be ſtopt. 2. That the putrid humidity be quite taken away by the Decoction of the *Roots of Capars*, *Bay Berries*, *Gallia Moſchata*, together with maſtick put into the hollow Tooth. 3. Corruption muſt be carefully prevented by cleanſing of the Teeth (with a Pen-knife) from meats that ſtick betwixt them; and likewiſe by waſhing of the Mouth with Wine. And here are commended the *Odontalgick* Remedy of *Crollius*, one grain thereof, wrapt up in Cotton, and ſo put upon the Tooth; the little round Bals of *Trallianus* formed and made of *Thebane Opium* one *ſcruple*, *Mirrh*, *Styrax Calamite*, *of each a dram*, *white Pepper*, *Saffron*, *Galbanum*, of each one ſcruple, and ſo made up with Honey of Squils, and then thruſt into the Tooth. II. *Worms*, which are to be drawn forth by thoſe little Pellets that are formed of the *Henbane* ſeed, the *Onion*, and *Garlick*, with a ſufficient quantity of Goats ſewet, and ſo impoſed upon the Hollowneſs of the Teeth.

Touching the *Fiſtula's* of the Teeth theſe two things are to be noted.

I. That they deſtil almoſt inſenſibly and by little and little a *Corrupt* Humor, and a kind of *Rotten Filth*, which *Somtimes* floweth into the Mouth with a ſtinking Savor. *Somtimes* it is leiſurely derived and drawn forth unto the external parts, along by the Roots of the Teeth, and the paſſage holes of the Jawbone, through which the Veſſels glide down, and ſlip into the ſaid Jaws: and ſo this Humor exciteh certain little riſings and ſwellings in the Cheek, or in the Chin; and *Somtimes* the Ulcer remaineth ever more open.

II. That it is hardly ever *to be Cured*, unleſs that the *Tooth be wholly pulled out* by the Roots; in regard that their little riſings albeit they may be broken, they wil yet grow up again a new, ſo that the Ulcers cannot by any means be ſhut. But now, that the tooth may the better be drawn forth, it may be wel rubbed with the *Fat* of *Green Frogs* living in trees; or elſe thoſe ſame little pellets formed of the *Juyce* of *Tithimal*, (or *Milk-Thiſtle*, and *Ammoniacum*, may fitly be put into

into the cavity or hollow thereof; or else it may be anoynted with the dissolved unguent of *Gum Ammoniack*, and the *seed of henbain*. But here observe, 1. That the neere neighbouring teeth ought to be wel guarded and fenced, lest that otherwise they be touched by the aforesaid medicament. 2. That the mouth is to be kept open, that so the Spittle may the better flow forth. 3. That nothing is to be swallowed down.

Article. II. *Of the Looſneß, or Movableneß of the Teeth.*

The Mobillity of the Teeth is the weak and infirm standing of them, proceeding from the proper Causes thereof; upon which said vacillation or infirmneß the falling forth of them doth oftentimes ensue.

The Teeth are the *Subject*, (but especially those that we cal *Insicorii*, or the Cutters) which are fastned with one root only.

The tooth it self if touched wil furnish us with a SIGNE.

The CAUSES are either *External*, or *internal*.

External, to wit, a blow, or a fal; and then we are to deal by astringent medicaments; but cheifly with the remedy that is compounded of *Acorus one dram, burnt Alum, Gals, the Juice of Acacia, of each half a dram; red rose leaves half a handful*; decocted with a pint of red wine, until it be fallen a thumbs breadth in the boyling, and then strained; with which the teeth ought dayly to be washed.

The internal are, I. an il *depraved Juyce corroding* and eating through the gums or the roots of the teeth; and then sharp distillations had their precedence, and the teeth their pain; in this case the pouder that is made of red coral prepared and mastick, is very available; if this happen in the venerial disease, for the Cure we must have recourse unto the said disease. II. *Overmuch humidity loosening* the roots of the teeth; and then the mouth aboundeth with spittle, and the gums are soft. In the *Cure* we are to make use of astringents of the decoction of *Sea-fern, Capars, Mirtle leaves, with the oyl of Sulfur. Pomgrannet rindes, Pomgranet flowers*, and *vitriol*, in regard that they make the teeth black are carefully to be avoided; if it chance from the scurvy, we must then have respect untoit in the cure of the distemper in hand. III. A *deffect of aliment*, which happeneth in old people, and in such as are in the way of recovery out of a disease; from whence it is that the holes of the teeth are the more widened and enlarged. It is not possibly to be cured, but yet notwithstanding we are to make use of those things that are moderately astringent.

I have already said that sometimes there followeth a *falling forth* of them; touching the which, observe. I. That in *infants* (in case the roots remain, in which the only hope of their shooting forth again consisteth) they then of their own *accord spring up and grow again*. II. That the *Molar appendix* (as they term it) seldom or never *falleth forth*, in regard that it is so closely conjoyned with the teeth, that the boney part of them may be seen. III. That the *Gemini*, or twin teeth, if they fal out, they scarcely ever return and grow forth again. IV. that the vacant places of them may be filled up with artificial teeth made of *ivory*, and put fast unto their places, alwaies provided, that due care be taken lest that from the Compression, there should chance to follow an inflamation of the Gums, or of the Nerves.

Chap. 2. *Of the Symptoms of the teeth.*

Article. I. *Of the Odontalgia, or pain of the Teeth.*

The Symptoms of the Teeth are, *Odontalgia, Stupor, Stridor, and Nigredo.*

Odontalgia is a sad and greivious sence of pain in the teeth, proceeding from the Solution of Continuity in them by reason of humors.

I cal it an afflicting and *greivous* sence of pain; for both the teeth, and likewise the soft and tender nerves of the Brain proceeding from the fifth and sixth Conjugation are partakers hereof: and the little membranes that encompass about the internal Cavity have likwise a little nerve implanted at the very root of the tooth.

The Teeth (and especially the Grinders) are the *Subject*. Yet notwithstanding that pain is different, and to be distinguished from the pain in *Children while they are breeding teeth* (which is greatest) and at the height, when the dogteeth (as they are commonly called) break forth; the which said pain ariseth also from the hardneſs and thickneſs of the Gums, and soon vanisheth away, if the aking tooth be anoynted

anoynted with the fat of a hen, or the milk of a Bitch.

There is no need of SIGNS: and yet notwithstanding it is dilligently to be discerned and differenced from the pain of the *Gums*, that are sometimes inflamed, swel and putrefie, and which is not at al removed, or so much as mitigated, although the tooth be drawn and taken forth.

The CAUSE is a humor dissolving continuity: touching which more in the Differences.

There is *Good hope* of a *Cure*; if there be a kind of *pus* or purulent matter gathered together in the Ear; and if the swelling arising in the Gums or in the Cheeks not first appearing, the matter be transmitted and thrust forth from the inward unto the exterior and outward parts. But there is but very *smal hopes*, if there happen withal a burning feaver, and an unusual grating of the teeth; in regard that this last (especially when it invadeth the patient by reason of the convulsion of the temple musles) seeing that it denoteth the touching and hurting of the brain; it therefore first of al threateneth a deliry or dotage, and soon after (in regard that it betokeneth the confirmation of the mallady) it menaceth and portendeth even death it self. *It is performed*, 1. By the *mitigation* of the pain (if it be externaly urgent and intollerable) by narcotick medicaments. That that is here profitable & expedient, is, *two grains of opium with* an equal part of *Saffron* wrapt up in silk, and put into or betwixt the pained teeth; the washing of the mouth with *vinegar* and *Opium*; Pils formed of *Opium* and the *Treacle* of Andromachus; touching which see *beckerus*, in his *medicus microcosmus*. The pain being once asswaged, let the mouth be forthwith wel washed with the decoction of sage and Rosmary. II. By the evaccuation of the peccant *humor*, by bloodletting; and here, (when it is for Revulsion) the blood must be drawn out of the greater vein; but when for derivation, from the lipps of the ears, or else from under the tongue; neither are we to forget or neglect the use of vesicatories behind the ears. III. By the repulsion and *interception* of the said humor; and for this purpose serveth wel the Emplaster of *mastick*, *Gum elemy*, and *Tuccamabaka* throughly warmed, and so applyed to the temples. IV. By discussion, with the playster of *Melilote*, and other the like. V. By the *Application* of such remedies as act and operate by their own specifical property; among which the cheif are, the *tooth* of a dead dog, burnt in the furnace, mingled with posset drink, and so imposed; the root of the sharp and sowr sorrel taken up in the spring, before it blossom and bud forth, wel dryed, and so applied unto the pained tooth; That we term *senecta serpentis*, boyled in wine or vinegar; *Gum Hedera* put into the teeth. VI. By *extraction* and drawing it forth; which wil be much facilitated, if the tooth be first touched with the distilled water of *Sal Armoniack*: take notice of this, let the Cause be what it wil: Take the *Fern root* and *Cinquefoyl*, of each three drams, *Bistort*, two drams; the *leaves of Rew, of Sage, of Betony, the Flowers of Roses, of each half a handful*; boyl al these in a sufficient quantity of red wine that is most astringent, and as much common water as you think fit, (until a third part be wasted) for a Collution to wash the mouth withal.

The *differences* are taken from the *original*, *place*, and *quality of the Humors*.

I. For their rise and *original*; they somtims flow together from the highest part or crown of the *head*; and then, the Revulsion ought to be by the Cephalick vein; and likewise those things that we hinted before touching repellers, are heedfully to be observed. Somtimes they arise from the *inferior parts*, and then the revulsion ought to be made by the Basilick vein.

II. For the *place*; sometimes they stick and abide in the *tooth*, and then the pain is not altogether so deep; but is extended according to the latitude of the tooth. For the most part it conteyneth within it a worm; by the motion whereof the pain is exasperated. Somtimes in the little *nerve* tending toward and into the roots of the tooth, and the nervous membrain thereof; and then the pain is the more vehement. It extendeth it self in breadth al along the Gums, and reacheth even unto the Ear; the tooth being taken forth, it is much eased, in regard that (by reason the way is opened) the pain may the better be dispersed and blown abroad. Somtimes it seateth it self in the very *Jaw-bones themselves*; and then, it floweth into the upper Jaw-bone along by the greater Angle of the Eye, and into the lower by the Temple Veins. We cannot attempt the Cure by Repellers, without apparent danger; in regard that the matter being brought unto the Jaws inevitably suffocateth and choaketh.

III. For the *Qualities*; some are *hot*, Serous or Wheyish, Salt, and Sharp; which

excite a most violent and intolerable pain, but hot withal such as soon hath an end, by Reason of the sudden changes. It is very rare that they have adjoyned to them (as a Concomitant) the swelling of the Cheek. They are removed and taken away by Repellers; among which are, Roots of the *sour Sorrel* boyled in hard and austere Wine, and together with Wine held in the Mouth as long as need requireth; the Roots of the *Wild sloes*; (the outward Rind being taken away) and this indeed is one of the cheif Remedies, al things else corresponding, and answerable thereto. Others are *Cold* and *Flegmatick*; from the which that pain that proceedeth is indeed more remiss and gentle, than the former, but then it is of longer continuance; these most commonly produce a swelling of the Cheeks. This pain is to be taken away (after that Universal and general Remedies have been made use of) with *Camphire half a scruple*, Spirit of Wine two ounces, or of the *Juniper Gum* half an ounce, boyled together with eight ounces of Rhenish Wine, and for a while kept in the Mouth: Or lastly, of the *Distilled Oyl of Cloves*, two drops thereof, with a smal proportion of Camphire, put upon the Tooth being first wrapt up in Cotton.

Article, II. *Of Stupor, Stridor, and Nigredo, in the Teeth.*

THe *Stupor*, or (if we may so term it) the astonishment of the Teeth is Caused, I. Somtimes from the *Sowrness* either of meats, or of the Humors, or else of the fumes and vapors; which frequently befalleth those that are Hypochondriacal. II. Somtimes from the *imagination* at the Noise that is made in filing of hard mettals, or the Mastication and Chewing of sharp sowr fruits by one standing neer. If the sound be very acute, piercing, and making a loud crashing, then the imagination suffereth a kind of violence (the Application of the said noise being made within an extream narrow compass) and then next of al the Membrane of the sense of hearing being likewise as it were smitten is offended, and thereupon is immediately contracted, and together with it certain little Nerves also even unto the Root of the Teeth; into which place a new Air suddenly falling in and getting entrance, causeth a certain kind of horrour about the Teeth. It is Cured and taken away by Chewing of *Wax*, *hot* bread, *Cloth*, &c.

The *Stridor*, Grinding, or Crashing noise of the Teeth, proceedeth. I. From the imbecillity of the Jaw-bone *Muscles*, produced and caused by cold. II. From *Worms*, the brain being affected by Consent. III. From the multitude of *Vapors*, is in the beginnings of Paroxysmes. It is wont to threaten the Apoplexy, and likewise in Feavers the Deliry or Dotage; (in such especially as are not accustomed thereunto) in case this doting went not before the Feaver.

III. Nigredo or blackness, proceedeth from divers Causes, as wel *External*, as *Internal*. And these external are, a Carelessness and neglect in Rubbing and Cleansing them; the use of sweet and hot things; and the anoynting of the upper parts with Quick-Silver or (as they commonly cal it) *Hydrarge*: These latter, to wit, the internal, are, 1. The Exspiration or breathing forth of Crudities by reason of surcharging the Stomach with meats or Drink. 2. A fault of the *Humors*, by reason of the impurity of the Bowels (and cheifly of the Spleen) left remayning behind after a Quartane Feaver. It is taken away by the Dentifrice Compounded of *Marsh-Mallow Roots, and of the Illirian Flower-de-luce*, Boyled in Water with *Salgem, and Alum*, of each alike, and as much as wil suffice, and after that throughly dryed in a Furnace, beaten together into a very smal powder, and mingled wel together with some few grains of Musk. There are other dentifrices that are formed and made of the *Jaw-bones* of the *Lucefish* or Pike, burned, *White Coral* and *Date Stones* burned, the *Bones* of the *Sepia* or Cuttle fish, and *Egg-shels* burnt, *Harts horn* burnt, &c.

Title, XII. *Of the Affects of the Gums.*

THe principal Affects of the *Gums* are, an Excrescence, and a *Purulis*.

I. The *Excrescence* is somtimes so great, by reason of the Spungy rarity and loosness of the Gums, and the abundant afflux of Blood, that the Teeth (and especially the Grinders or *Molares*) are quite covered over. The Excrescent flesh is somtimes Lax and loose, for-

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did, and flagging and if it be now and then touched upon, it sendeth forth likewise a crude blood. It is sometimes accompanyed with a putridness and rottenness; but then again it is often free from it. In the *Cure* we are to use Astringents, to wit, *Alum burnt*, *Sal Ammoniack*, *Mastick*, *Frankincense*, al of them reduced and made into a very fine flour; in case there be no putrefaction present; but if there be; then the *Green Water* of Platerus, and Hartman; and likewise the *Unguent* of the herb *Celandine*, are commended. And this that followeth is by frequent use found to be singularly useful, and therefore much approved of. Take Pouder of the *Leaves* of *Celandine*, *Sage*, *Crisped Mints*, and *Nut-meg*, of each half an ounce; *Alum burnt* one ounce, the *purest honey* four ounces. Let the Honey be throughly freed from its scum by the fire; and then when it is scummed, while it is yet hot, let the powders be sprinkled thereinto; and make a Liniment, for the anoynting of the Teeth therewithal.

III. *Parulis is an Inflamation of the Gums, extending it self inwardly unto the Root of the Teeth, and outwardly so sticking out, that even the neer neighboring parts are likewise distended, grow hot, and become Red.*

It getteth into, and setteth it self in the upper Jaw-bone, from the greater corner of the Eyes; and into the lower, by the Temples, out of the Veins there ending, upon this there followeth an *Impostumation*; the filthy corrupt matter whereof break forth and rusheth violently not unto the Skin of the Face, but unto the Roots of the Teeth, that are covered over with a thin Skin or covering. If the *Ulcer* be ill Cured, then there wil be a little piece of Fleth that wil stand out, and hang forth very much; and this is called *Epulis*. The way and Method of Curing this Inflamation *Parulis* is one and the same with that in al the other Inflamations. There may be the Vein opened that is under the Tongue. Useful likewise are *Cupping-Glasses* applyed unto the Nook of the Neck. In *Topical* Medicaments, it is to be observed, that al those that are rough, and of a corroding and biting quality, are to be abstained from. *Vinegar* must be forborn, in regard that it corrodeth the Gums that are in their own Nature soft and loose. In the *Epulis*, *Vitriol* sprinkled thereupon much beneficeth.

Title, XIII. *Of the Affects of the Jaw-bones.*

THe principal affects of the *Jaw-bones* are, *Immobility*, and *Relaxation* or looseness.

I. *Immobility*, or unmovableness, happeneth unto the nether Jaw-bone, *either* by Reason of some Luxation (when it is put out of Joynt) from a Coalition or growing together of the said Jaw-bone with the Head; *or else*, by reason of a distillation derived from the Crown of the Head, which floweth into the Joynt thereof at the Root of the Ear; there following upon the same a pain, and likewise a Hard and Conspicuous swelling: and hitherto appertaineth the *Scorbutical* Rigidness and stifness of the Jaw-bones.

II. *The* Luxation (or *disjoynting*) *of the Jaw-bone is, the rare but dangerous Depulsion and forcing of the same (in the one only or both parts thereof) unto the foremost parts. It is known* from hence, that in this case the Mouth cannot be shut, the speech is depraved, and the Mastication or Chewing of food taken away; and if the Process be disjoynted like unto a Bil or Beak, that which is inserted under the Jugal bone is made to become lower in situation than the Jugal bone it self, and is carryed forth without the same Jugal bone. Touching the *Cure* hereof it is to be noted; 1. That it is with al possible speed to be taken in hand, lest that the affected Muscles, (by Reason of those branches of the Nerves, which taking their original from the Second and fifth pair of the Brain are inserted into the Muscles moving the Jaw-bone) should likewise draw the brain into a Consent and agreement with them. 2. That if it be not restored, it then threateneth danger of Death, about the tenth day, with a continual feaver accompanying it, as also an irresistible necessity of sleeping. *It is divided* into that, *in which the Jaw-bone* is driven down in one part alone; (and then) it standeth forth from that part more toward the forepart; it and the Chin are inclined unto the adverse parts; the Mouth is writhed and standeth awry, and the inferior and higher row of the Teeth doth not so answer the one to the other, (as in truth they ought to do)

that the dog-teeth (as we cal them) ſtand directly under the *inciſorij* or Cutters; ſee for the Cure in the Profeſſors and Practitioners in Phyſick:) *and into that, in which the Jaw-bone is forced and down in both parts thereof*; and the Ranks or rows of the Teeth anſwer and fal in one with the other; the Mouth gapethmore, and a ſtuttering and ſtammering in the ſpeech followeth thereupon; the lower Jaw-bone can by no means be Joyned cloſe with the upper, but this ſtandeth out further than that. It is the more dangerous, in regard of the Affect of thoſe four Muſcles that draw upward the Jaw-bone, and likewiſe of the Nerves inſerted into the ſaid Muſcles; from whence proceedeth pain, an Inflamation, an acute Feaver, and Griping pains of the Stomach. As for the *Cure*, See as above.

Title, XIV. *Of the Affects of the Wind-pipe or Weſand.*

THe Principal Affects of the *Weſand*, are, *Laxation*, and *Inflamation*.

I. *Laxation is, when it (to wit, the Weſand) preternaturally ſwelling up (yet without any Inflamation) for the moſt part from a Flegmatick Humor tranſmitted from the brain, is extended into an extraordinary length.*

And it is then called *Cionis Chalaſmene*; but it is termed *Staphule*, or the Grape, when in its lower part Waxing thick and growing round, it becometh more ſlender than that above which it hangeth; ſo that it beareth the reſemblance of a grape hanging by its little foot. But then (to tel you the truth) it lyeth upon the Root of the Tongue, and the Jaws, with a kind of troubleſom Titillation or tickling; with which whoſever is affected, he is perpetually ſtriving and endeavoring (but al in Vain) to devour it; fearing leſt that by the impetuous violence thereof he ſhould be ſtrangled. The *Columella* it ſelf becometh ſoft, ſomwhat whitiſh, and of the ſame color with the Palate, without pain and heat. The Humor is ſent down from the brain; and this eſpecially cometh to paſs in Catarrhes. This A. *ffect is Cured* like as the Inflamation. If the Columella be Eaten through, the ſharp Humor is to be tempered and qualifyed; and after this *Abſterſion* or Cleanſing muſt follow. That which is here of ſingular benefit, is, a *new laid Egg* Boyled unto a hardneſs, cut through the midſt, and for ſome hours applyed to the Crown of the Head; in Infants, *a clean Paper* four double, wel wet in the Mothers Milk and Roſe water (as much of one as of the other) applied and laid upon the Crown of the Head; a Powder compounded of Long Pepper one ſcruple, the *Juyce of Acacia*, and *Tormentil Roots*, of each two ſcruples; and ſo blown in after the uſe of an Aſtringent Gargariſm.

II. The *Inflamation of the Weſand*, is, the riſing or ſwelling of the ſame, from a Cholerick Blood fallen down into it, with a redneſs, burning heat, pain, danger of ſuffocation, and ſomtimes alſo with a Feaver. The buſineſs is here alike as in other Inflamations.

Title, XV. *Of the Affects of the Tonſils.*

THe Principal Affects of the *Tonſils* are, an *Inflamation*, and an *Ulcer*.

I. *The Inflamation of the Tonſils is a riſing or ſwelling up of them, produced by the afflux of Humors.*

It *is known* within under the Jaw-bone by the touch, and by the ſight thereof; where like unto a ſmal Gobbet ſticking in the Jaws, it preſſeth by its weightineſs, and hindereth, ſo that neither Meat, nor drink, nor ſpittle, can eaſily paſs through either up or down. There are alſo preſent, pain, a burning heat, redneſs, and a thirſt; and it falleth more eaſily into the Tonſils than the Weſand, by reaſon of the ſoftneſs and looſneſs of its proper Temperament, and likewiſe its place. *It ariſeth Externally* in *little Children*, by Reaſon of their Voracity, and inſatiable feeding (the Greeks cal it *Addephagia*) unto which there is likewiſe added a weak and tender Conſtitution of Body; in *Children that Suck*, by Reaſon of ſome fault and pravity in the Milk: in *Girls*, from an inſufficient Purgation of the *Menſtrua* or Monthly Courſes: in *thoſe of Riper Age*, by Reaſon of their overmuch drinking of that wine that is not firſt diluted and weakened; as alſo their much

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and more greedy of al sorts of Meats, but more especially those that are sharp and rough *Internally*, from the afflux of humors that are hot and sharp. *Cured it is* after the same manner as are other inflamations: yet this notwithstanding is attentively to be heeded, that sometimes the Tonsils are made the harder by the over frequent use of Coolers and Repellers.

II. Touching *Ulcers*, these things come in the next place to be taken notice of, I. That there is the less danger in them, if they be without a Feaver. II. That those of them that appear, in the heat of Summer (because they then immediatly creep forward) are worse than those that arise at other times. III. That they may sometimes be and appear (without any Inflamation at al) either from some Salt distillation eating through those parts, or else from some Vapor or Exhalation ascending upwards, which happeneth in the Venerial or French disease; and sometimes again from other Causes, the Spring time, and a Pestilential Air. IV. That some of these Ulcers are *Familiar* and milde, (which are smal, clean, not descending very deep, neither inflamed, nor exciting any pain;) Others *Malignant* and *Pestilential*; and these are broad, Hollow, growing Nasty and filthy by reason of some congealed Humor that is either white, or black, or Livid, black and blew: but now if these aforesaid congealed impurities descend deeper, then there is bred that which we term an Eschar, or Crustiness. V. That those of them that Creep about the Jaws, with much trouble and annoyance; Cause a difficulty of breathing; but that if by the *Trachæa* Artery they Penetrate into the Breast, they then strangle the Party the very self same day. In the *Cure*, we are to understand, that al the Ulcers of the Mouth (as wel) lest that they Creep and proceed further, as also because that they evermore become the moyster by Reason of the Spittle, do need and require the stronger sort of Astringent Medicaments. And thus much touching the Diseases of the Head.

THE

THE NINTH BOOK OF THE IDEA OF PRACTICAL PHYSICK.

Of the Diseases of the middle Venter or Region.

Title I. *Of the Diseases of the Jaws, or Angina, that is, Squinancy.*

AND thus much shal suffice to have been spoken touching the Diseases and Affects of the Brain. There follow now the Diseases of the *Middle Region*; which Contain and Comprehend under them the Affects of the *Jaws*, the Throat, the Aspera Arteria or rough Artery, the *Lungs*, the *Chest*, the Teats, and the *Heart*.

The Disease of the *Jaws* is that we cal *Angina*, (or the *Squinancy*, *but more vulgarly the* Quinsey) *or the shutting up (as it were) of the* Jaws, *that is, of the Supream parts of the Gullet and the throat, through which is an entrance and Passage not only for the meat and drink, but likewise for the Breath; Producing and Bringing along with it a Difficulty both of breathing and Swallowing.*

The *Common signs* are, Difficulty of breathing, in regard that the Throat is in a manner stopt and shut up; the *Impediment* or hinderance of the *Swallowing*, as wel in regard that the Gullet is obstructed; as that likewise the two Muscles deriving their Original from the Larinx (called *Oesophagici* and Circulatores, because they embrace and encompass about the *Oesophagus* with their transverse Fibres resembling a Semicircle) are busied in helping forward the thrusting down of the Meat and Drink unto the inferior parts, whilest that they draw up the Larynx, in the time of swallowing, that so it may give way unto the food, whether Meat or Drink: as also, in regard that the Muscles of the Jaws thrusting down the food unto the *Oesophagus*, (while they are Contracted

tracted and drawn together unto the place where they begin) do here suffer. *A pain about the Jaws*, which is either augmented or diminished, according to the quality and condition of the Causes and the subjects.

The *Causes* are al things whatsoever that are apt to stop the breath, as we shal further shew you in the differences.

So for *Cure* in the differences.

In regard of its causes, *it is divided into three* sorts *or kinds*; the first whereof hath comprehended under it *four* species.

1. One is *from an Inflamation, which is knowen* by the continual fever accompanying, if withal there be together present such other things as usually concur. *It hath its original* from that blood that floweth into those parts from out of the branches of the Jugular veins; there going before, for the most part, a difficult moveing of the neck, without any apparant causes, and withal a certain pain; as likewise an unusual heat about the Jaws. It is *very hardly cured*, if there be present a great and Intence feaver the spittle somwhat dry, Clammy and thick. The *Event* of the Cure is somewhat *doubtful*, if (the matter being transmitted into the Lunges) there arise an Empema or impostamation of the Lungs to the Head, if it exciteth and causeth a doting, or delire: if to the *Pleara* Membrane, it causeth a pain of the whol Breast, with a cough, and difficulty of breathing: if unto the heart, it then introduceth and brings along with it a kind of trembling, and almost undiscernable beating of the pulses. There is no hopes at al if the fever prevail the greatest heighth and intensenes; if the face of the sick person become greenish, if the angles or corners of the Eyes somewhat black and thick; and lastly, if there appear froth about the Mouth, in regard that it signifieth an exteam streightning of the heart. The *Cure* is to be ordered according to the rule and method in other inflamations; which are notwithstanding there come these few peculiar things to be observed. Touching *Venesection*, is to be noted, 1. If it be doubtful whether side thereof be the more afflicted, (since that the Liver is the part transmitting) the blood ought then to be drawn forth of the right arm. 2. Where there is not so great a difficulty of brathing, the blood may be drawn forth the more freely and plentifully, but when the difficulty of breathing is great, there ought to be the less blood taken away, and that at several times, and the intervall of four or five hours betwixt. 3. That if Cuppinglasses be forthwith applyed unto that part that is nigheſt unto the place affected, then there wil be excited in that sayd part the Greater Conflux; and therefore they ought to be put upon the Reines, and not upon either the Arm or Neck. *Purgation* is forthwith in the very beginning, to be ordayned. *Repellers* ought inwardly to be administred unto the Jaws; and this especially indeed in the form of Gargarismes, Mouth-washings (termed Collutions) and Luctures. And here there is commended, *Lapis prunella*, The Composition, of Mulberries, *Must* (or new Wine) and *Nutshels*; (in regard that it hath in it an extraordinary astringent quality and power;) those Medicaments that are formed of *Sengreen*, *Plantane*, and *Purslane*, &c. On the third or fourth day *Digestives* are to be mingled together with Repellers. In the Declination of the Disease, the *Ashes of burnt Crevises* or Crabs is to be wel mingled with Honey; or the *White Excrements of a Dog*, or that of a *Hen*, or that that is taken out of the *Swallows Nest*, poudered, and sierſed. Among the *Maturatives* or Ripeners, there is the pith or pulp of *Cassia*, kept a while in the Mouth, Gargarisms of blood warm milk with Sugar; The *Emplaster* that is formed of *Marsh-mallows* and the *Common Mallows*, of each one handful, *Camomile Flowers*, *Melilote Flowers*, *Linseed*, *Fenugreek Seed*, of each half a dram; ful and fat figs, in Number ten; wheaten meal, two Pugils or little handfuls. For *the breaking* thereof, excellent good is the Cataplasm of the Cream of the new and fresh roots of the flower-de-luce, with butter and the Oyl of Violets. Among the *Specifical* remedies are, the Mushrom or the *Elder Tree*, boyled and drunk; the *Pouder* of *Swallows*, if after they have had Salt cast upon them, they together with their feathers, be burnt in an Earthen Vessel; and the Ashes mixed with Honey spread and anoynted upon the place affected; one scruple of the *Shavings* of the Bores *tooth*, if it be mingled with half an ounce of the Oyl of sweet Almonds, and sweetned with white Sugar Candy; and lastly, the secret of *Guntzmannus*, mentioned by *Hartman*. In the Patients diet we are to come at length unto *Nutritive Clysters*. *It is divided* in a twofold manner. 1. Into *four species* or kinds, *Cynanche*, &c. Of which more below, Number, 4. 2. Into *that* that is from *Pure blood*, in which there is a greater distension of the Neck, and the color of the Face is somwhat Red; and into *that* which proceedeth from a

Flegmatick

Flegmatick blood in the which al the Symptoms are more mild and Gentle.

II. One is from the *Relaxation of the Vertebræ of the Neck*, and then either a fal or a blow went before it as its efficient Cause; or else some Humor or other hath preternaturally loosened the Joynts and Ligaments of the Vertebra, or otherwise hath dislodged them from their proper seat; there appeareth here none of those signs, that in the others are manifestly discovered: the Neck is hollowed behind; and is not to be turned, about the *Oesophagus*; without much ado, and pain withal. The pain is felt, if the part affected be but externally touched: the Tongue falleth forth from its proper place. The *Cure* is to be sought for in its own due place, that is to say, from its sources, spring, and Fountain.

III. One is from a *Pituitous* or Phlegmatick *defluxion* residing upon the Joynts and the Muscles of the Neck; and then the pain is not great and violent, but dul and heavy; the swelling is somewhat broader, but then it hath in it very little or no redness; there is present no fever, or if any, it is but moderate. The voice waxeth hoarse, there is great store of spittle, the sick Persons alwaies gape with open mouth and drawing Air, there is likewise some difficulty in swallowing, but yet without any great hazard of suffocation. The *Cure* is to be ordered according to that of a Catarrh.

IV. That which ariseth *from an inflamation*, one is called *Cynauche*, which lyeth hid in the internal Muscles of the Larynx or the Throat; and then whether inwardly in the Jaws, or outwardly in the Neck, appeareth there any redness or swelling at al; but the Jaws are so vehemently pained, together with great danger and peril of suffocation, that the diseased persons are enforced to take in the Air and to breath with their neck erected strait and upright, and with open mouth. The fever that accompanyeth it is most acute; and the disease strangleth the party, within four days at the utmost, but very usually within eighteen hours time. That which in this case much profiteth is *Cupping glasses* applyed unto the veins under the tongue: touching which see further in *Zacutus Lusitanus* in his eigth book. Chap. 2.

Another is that we cal *Paracynauche*, which sticketh and hath its residence in the external Muscles: and then there is to be found within a certain swelling and redness, the mouth being drawn aside and writhed after a strange manner, and the tongue depressed and kept down: if it vanish away at any time when there is no *crisis* to be expected, and a little swelling or rising appear (but yet such as is altogether void of pain) which cannot be suppurated either by the Vigor of Nature, or the help and benefit of Art, it then threateneth Death, and a return of its red color; the former, in regard that the thick matter being left al without, the more thin, and hotter part thereof is converted unto the throat; the latter, by Reason that there is likewise (by some accident) a hotter kind of matter driven inwardly.

Another *Synanche*, which is conteined in the interior space or Cavity of the Jaws; and then, it likewise extendeth it self unto the Root of the Tongue, and comprehendeth the Neck it self; there is then also apparently to be discerned a swelling and a redness (in the outward parts) together with pain and heat; the which said swelling if it have recourse unto the more internal parts without any manifest cause, it then suddenly vanisheth away upon thi translation of the matter: the Symptomes ares here never a whit more milde and gentle than in the other sorts, but yet notwithstanding there is here greater hopes of safety, in regard that the Inflamation advancing into the outward parts, may possibly be drawn forth, and digested.

Another is that we cal *Paracynanche*, the which seizeth upon the Neck alone, and the Muscles thereof, that appertain unto the Tongue and the *Hyoid* bone. This of al the rest is least to be feared as having least danger in it, because of its distance from the Throat; as also by Reason of the constitution of the parts affected, which being Kernelly, soft, and loose, may the better without any difficulty receive the Humor that floweth unto it, in regard that the Muscles of the *Larynx* are not inflamed, neither the way and passage of breathing intercepted and stopt.

V. One is that, which is dissolved and removed by a *Diaphoresis* or Sweat, the Cause thereof being thereby diverted, drawn back, Evacuated, or at least dispersed and scattered. Another, that is Cured *by Maturation*, and the Evacuation of the *Pus* or corrupt Matter out of it, being first opened. Another, which is terminated and ended *by the Translation of the Peccant matter unto some other Part*; which is known by the sudden and unexpected cessation of the swelling and the pain, and likewise

wise by the alteration and change of the Pulse. The matter is Transferred, 1. *Unto the Brain*, and then there followeth a grievous pain of the Head, a Phrensie, and a Dotage. 2. *Unto the Muscles of the Neck*, and then there is usually produced and excited an extream pain, a swelling, and somtimes a Convulsion. 3. *Unto* the *Lungs, and the Pleura* Membrane, and then there ariseth a pain of the Breast, Cough, and difficulty of breathing. 4. *Unto the* Heart; whereupon a Trembling, swooning; and an obscure and weak pulse affect the Diseased Party.

Title, II. *Of the Diseases of the Throat.*

A Single Chapter, *Of those Kernels we cal* Strumæ, *and of* Bronchocele, *a swelling in the Throat.*

THe Diseases of the throat, are *Strumæ*, and *Bronchocele.*

I. Strumæ (*commonly called* Scrofulæ, *or the* Kings Evil) *in the Throat are swellings in the Glandules or Kernels, generated of thick and Clammy Flegm, and included in their own proper Membrane.*

There is no need here of many SIGNS; the swellings are round, Pendulous and hanging, easily moved if touched, and such as are separable from the Skin.

The CAUSE is flegm, which is somtime alone, but other while conjoyned with Melancholly, it ariseth from Meats that afford a Crude, raw, and thick Juyce, and thereupon it is most Familiar unto Infants, and such as are yet in the state of Child hood. It may especially likewise be thrust and made to appear by those Waters that contein in them Mercury or Quick Silver, such as are those in *Carinthia, Styria*, and about the *Alpes*. It is somtimes (together with a nourishing Juyce, if the said Juyce offending in quantity be not wholly consumed and wasted) by Nature sent unto the Glandules as unto the more ignoble parts. The Membrane in which they are included is never by the Formative Faculty produced in Vain, or to the end it should be idle and of no use. For when as the Memberane is distended by the Superfluous Humor in great abundance thereunto flowing, and haply likewise thereby broken, Nature then attempteth as it were the contexture and forming of a new kind of Membrane.

The CURE dependeth chiefly upon the Particulars following. I. The matter that is the Cause thereof ought to be Evacuated. II. The same matter is to be wholly wasted and consumed with the Herb *Scrophularia* commonly called blinde Nettle, and Water *Betony, the Root of the dead Nettle*, the Roots of Herbs, *Filipendula* and *Gladiotus*, but especially the *Root* of the shrub *Ruscus* or Butchers broom; of which there is to be taken (after it hath been reduced into a smal pouder) every day for a while one dram thereof in wine. III. The said matter is to be cut and dissipated by Emollient Topicks. And for this purpose there are commended the *Leaves of the Cypress Tree*, the pouder whereof being sprinkled with Wine, let it be so made up into one Mass or Lump; and then let the aforesaid Strumæ or kernels be anoynted therwith for two or three daies. IV. It is to be suppurated, and when it is brought unto *Pus* or Matter, then the swelling is to be opened, the *Pus* or filth to be emptyed forth, the hollow or Cavity thereof to be throughly cleansed, and purged; and lastly to be filled up again with Flesh.

II. *Branchocele is a swelling in the throat, sticking and strutting forth so that it taketh up much room, arising from a windiness, and conjoyned with an extension.*

The aforesaid windiness breaketh in under the Skin, and the general Membrane, that is situate under, and knit unto the Skin in the more inward parts of the Neck. It *is Caused* by the Air, which, (when the Skin, whose Membrance in that place is more thick, and somwhat more red than else where) is violently pulled away from those seats and places that are subjected unto the *Aspera Arteria* or rough Artery, and the Anterior Muscles of the Neck, by some extraordinary vehement streining of the Body (and this often cometh to pass, whilest the breath is long held in, that so the Excrements, or the infant in Child-bearing may the better and more speedily be thrust forth; or when Trumpets are strongly blown, and thereby the Cheeks extreamly swollen and puffed out) and being rent and divided as aforesaid, it causeth and produceth there a void

and empty Ipace) to prevent a vacuity breaketh in, and ſo elevateth and lifteth up the Skin and Membrane into a Tumor or Swelling.

Title, III. *Of the Diſeaſes of the Aſpera Arteria, or the great rough Artery.*

THe Diſeaſes of the *Aſpera Arteria* are, *Aſperity* or roughneſs, *Narrowneſs* or ſtreightneſs, *Wounds*, and *Ulcers*.

I. *Aſperity* or roughneſs, *which is* a want or defect of the *Natural Smoothneſs*, *is known* by the hoarſneſs of the Voice. Either *from Externals*, as from Oyl, if by Reaſon of its Age, or frying therewithal, it become Rank; from Nuts, from duſt, from Smoak, &c. Or elſe *from Internals*, either *Humors* fallen down from the Head; or elſe *A Vapor* ſtriking upon the foldings thereof. *It is to be Cured* by thoſe Medicaments that moiſten, Mollifie, and make ſmooth; and theſe Medicaments (termed Arteriacal) either they are wholly void of al kind of Mordicacity and biting quality; to wit, *Butter*, *Milk*, *Sweet Muſt*, the *Decoction of Raiſons*, *Liquorice*, *Jujubes*, *Tragacanth*; or withal abſterſive, as, *Sugar*, the *Honey* or Juyce *of dryed Figgs*, the *Sugar* of *Penidies*, the *Syrup* of *Violets*, and of *Jujubes*; or elſe with a kind of Acrimony and Tartneſs; as *Hyſſop*, *the Flower-de-Luce Roots*, *Nettle Seed*, *ſpike*, *Frankincenſe*, and *Mirrh*. But that which is here moſt profitable and expedient, is, that ſort of Pills that we term *Bechichæ*, likewiſe the Troquiſches *Bechici*, and the Oyl of *Sweet Almonds* with Sugar Candy.

II. The ſtreightneſs or narrowneſs of the Rough Artery *is known* from the difficulty of breathing, and the fear of a neer approaching ſuffocation and ſtrangling, which is ſomtimes greater, and ſomtimes leſs. It *ariſeth* either from thoſe *Cauſes that Compreſs* or preſs it down, as the Relaxation or Looſening of the Vertebræ, Inflamations, Swellings, the halter, &c. Or elſe from thoſe *Cauſes* that *Obſtruct*, as things external fallen thereinto; which are to be removed. Or elſe internal, to wit, Humors thick, and of a ſlimy and Glutinous Nature, (which are to be Cut, attenuated, and cleanſed forth, with the Syrup of *Maiden hair*, *Horehound*, and *Liquoriſh*) or by reaſon of Purulent matter, and final ſtones, (Particularly that called *Grando*) bred in the Lungs, and a certain kind of fleſh that is bred and brought forth after wounds and Ulcers.

III. *Wounds*, either they touch only the *Superficies* thereof, and then they may be cured; or elſe they touch the *Cavity* thereof, and then the Air paſſeth forth in ſuch a manner, that if a candle be put thereinto it is forthwith extinguiſhed: if the Cartilaginous ſubſtance be wounded, (eſpecially after a tranſverſe manner) it can hardly ever be brought to unite again; if the wound be betwixt the two little rings thereof, they are now and then Healed.

IV. Touching *Ulcers* take this advertiſement, to wit, that they ariſe from Humors that are ſharp and Salt, from Poyſons, and from Medicaments: and that they afflict with pain, ſpitting of Blood, (pure in the beginning, but afterwards purulent) inſomuch that even ſcales, and a kind of Gruſtineſs may now and then be caſt forth: If they ſeize upon and poſſeſs the Internal Cavity, they are then, (by reaſon of the Nature and Situation of the Parts) very hard to be Cured: and laſtly, that if the Cartilages be eaten through, and that there happen thereupon any putrefying affect, it is then altogether incurable.

Title, IV. *Of the Diſeaſes of the Lungs.*

Chap. 1. *Of the Diſtemper of the Lungs.*

THe Diſeaſes of the Lungs are, *Intemperies*, *Peripneumonia*, *Anguſtia*, or ſtreighneſs, a Wound, *Phthiſis* or *an Ulcer*.

The Diſtemper of the Lungs is the declining thereof from its natural temper unto that which is preternatural, as wel by reaſon of External as Internal Cauſes.

The SIGNS ſhal be expreſſed in the Differences.

The CAUSES are either *External*; (and theſe

these likewise various, to wit, cold or hot potions) medicaments applied, the Air that being little or nothing altered is carried and conveyed unto the Lungs, in such as are destitute of the columella) or else they are *internal*, to wit, the *Humors* that are drawn along thither either from the Head, or else from some other parts, but frequently from the Liver.

The CURE is to be ordered according to the several Causes: where, in regard of the humors, take notice. 1. That in respect of the situation of the part it is not to be removed without much difficulty; yet notwithstanding that it ought to be evacuated. 2. That if there be there a greater store than ordinary of flegm, it is then more fitly to be removed with those Remedies that expectorate and mollifie (such as are Eryngo Roots; and marshmallow roots, common mallows, and Raysins) than by those medicaments that cut. 3. That many hot remedies are not here convenient, lest that the thinner parts being wasted, the thicker remain behinde. The best remedy in this case is *Linseed*. 4. That if there be present an acute feaver together with the matter; we ought then to abstain from those medicaments we cal *Eclegmata*; for these by their dryness and clamminess do much if not wholly supress expectoration; from whence there followeth a more frequent respiration, or thicker fetching of the breath; and the matter also by the extraordinary heat becometh the more contumacious and obstinate.

The Distemper of the lungs *is divided* after a twofold manner.

I. One is *without matter*, which indeed hath in it no danger at al of suffocation, and is also more easily cured: Another *with matter*, which is to be Evacuated and drawn back, like as we shewn above.

II. One is *hot*, *which is known* by this, that the Cheeks by reason of the fumes ascending become red; and that there is evermore a dryness of the tongue (together with a thirst) which can no way be qualified but by the breathing and drawing in of the cold Air; infesting the sick person; and likewise that the breathing is more than usually frequent and swift. In the *Cure* Cooling medicaments (which through the rough artery are thither to be conveyed) ought to be administred; *where note*, 1. That those medicaments that are mainly cooling and repelling are altogether enemies and offensive to the Breast, by intercepting the passages of the blood and spirit, and by their weakening and impayring the very nature of the Breast, since that it is Cartilaginous and bony 2. That among the principal internal Remedies we are to account both the white and black *Poppy*, *Rheas*, *Violets*, *Endive*, *Barly*, *Water-Lilies* and their syrups. 3. That the diet ought to be conformable; and that for a drink and potion, the *water of barly with the Syrup of Violets* is excellent good.

III. Another is *Cold*, *which is known* by this, that Cooling Causes went before; that the Breathing is but weak, slow, rare, and the Pulse like thereunto; and that the Breath that cometh forth is colder then ordinary. In the *Cure* we are to Use medicaments that heat; among which these are to be accounted of as very fit and proper, to wit, *saffron*, which is as it were the very life and soul of the Lungs, the Extract of *calamus Aromaticus*, *old treacle*, *Coltsfoot*, *Nicotiana* or tobako, *scabious*, *the root of the Flower-de-luce*, and the root of *Aron* or Cuckowpint, prepared; *Elixir proprietatis*, that *Mixture* they term *Simplex oxymel Scillitick*, &c.

IV. One is *Moist*; *which is known* by this, that the voice is hoarse, the breathing thick and frequent, with a kind of wheezing, snorting, and much spittle. In the *Curing* hereof we ought carefully to avoid those medicaments that are overdrying and astringent. The Chymical oyl of *sulpher*, and the *flowers of sulphur* or brimstone, (the shops cal this latter *flores sulphuris*) in a rere egge that may be supped up; the wine wherein the *eyes of crabs* or crefishes have been mucerated, *sassafras*, *China root*, &c. are here of singular use and benefit.

V. Another is *dry*; *which is known* by this, that persons thus affected wast and consume away without any Ulcer at al; that the breathing is very little and weak, but thick and short; that there is present a continual thirstiness, and but smal store of spittle. In the *Cure* hereof, *Raysons of the sun*, *womens breastmilk*, *and Asses milk*, *the destilled* water of *Tortoises*, *the broth of veal*, *and the conserve of violets*, are especially good and profitable. Externally, a Bath of sweet water ought to be Prescribed.

Chap. 2. *Of Peripneumonia.*

PEripneumonia *is an inflamation of the Lungs from blood poured forth into the substance thereof, with a straightness of the*

Breast, a difficulty of breathing, an acute Feaver, and a cough.

The SIGNS *are*, the *narrowneß* of the *Breast*, with a dul and heavy pain, that extendeth it self and reacheth even unto the *ſpina* or Backbone; where the membrains that touch upon the *Pleura* are faſtened and upheld; and this pain is more remiſs and moderate; unleſs the membrain be together inflamed; but if it be, then the pain withal becometh extreamly pricking. There is likewiſe a *difficulty* of *Breathing*, and indeed greater than that in a Pleuriſie; ſo as that the ſick perſon is (with extream hazard and peril of ſuffocation) enforced in a ſtrait upright poſture to draw his breath, the breſt or *Thorax* in that kind of ſituation being the more eaſily dilated, forasmuch as in thoſe that ly along in their beds it falleth down, becauſe that the parts of the Thorax or breaſt decline and reſt themſelves upon the *ſpina* or backbone, which being erected, the Thorax is likewiſe together born out, and ſo is no longer heavy and burthenſom unto it ſelf. The aforeſaid *Reſpiration* is ſublime, ſo that in it the very top of the Thorax is moved, even unto the very covering of the ſhoulder-blades: it is alſo frequent and often in the begining, and likewiſe it is greater than ordinary; which in a ſhort time (by reaſon of the weakneſs and decay of the natural vigour, and the inſtruments of breathing) is chainged into that which is far leſs, and is increaſed by the frequency thereof. The *Breathing* is hot; and becauſe that by the expulſion of the ſooty and miſty vapours the Heart is lightened, they are therefore the more eaſed and lightened, the more they breath forth the aforeſaid offenſive and oppreſſing fumes. The ſharpneſs of it in a feaver is greater than in the pleuriſie in regard of the neer neighborhood of the heart; and hereupon, there exhale hot vapours unto the Head, which hurrying the blood along together with them, make an impreſſion upon the cheeks, (where the skin is but thin) and ſo cauſe the face to become red; the eyes and the Temple veins ſwel; the cough is very troubleſom, by reaſon of the affect of the Lungs. It is conjoined and accompanyed with *ſpittle*, that is ſent forth at firſt with a kind of thinner putrefied and rotten matter, and by and by dyed with blood, and likewiſe otherwhile otherwiſe colored; and ſomtimes it is ſpit forth ful of froth.

The CAUSE is blood, which is poured forth of the right angle or connor of the Heart into that vein that we cal *Arterioſa*, and ſo filleth not only the veins and Arteries of the lungs, but likewiſe alſo the whol body. It is rayſed and ſtirred up from external cauſes, as a cold Air, and eſpecially the cold northern Air immediatly following upon the ſoutherly; the drinking of generous and ſtrong wines; a violent and more vehement motion, after long reſt and quietneſs, and this upon a ful ſtomach, the body being likewiſe ful and wanting Evacuation; Anger, and other the paſſions of the mind, &c.

There is *ſome hopes* of a CURE if the Spitle being of a mingled red and yellowiſh color give out and intimate any ſign of concoction in the Lungs affected; and if the impoſtumations be thruſt forth either unto the Ears, or unto the inferior feats of the *Thorax*; and ſo they either paſs and turn into a fiſtula, (and ſo may be evacuated) or elſe they are derived unto the Thighs. It is ſomthing *doubtful*, if there be want of ſpittle, by reaſon of the contumacy or unpliablneſs of the matter, and the imbicility of the natural powers; if there iſſue forth and appear with much and thick urine, thoſe ſweats that at firſt did ariſe about the neck and the head; becauſe thoſe aforeſaid ſweats are thought to proceed from a forcible conſtraint, ſuffocation, and violence. As for al other things in the cure, it foloweth the method of other inflamations. If it ſucceed *any other diſeaſe*, and the blood be already evacuated, then Cupping-Glaſſes with ſcarification ought to be applyed unto the Arms and the *Thorax* or Cheſt: let the Expectorations be of the ſtronger ſort, and ſo likewiſe the Topical Remedyes.

The *difference* is taken from the ſubject and the cauſes.

I. One is of the whole lungs, which if together with the heart it be inflamed, ſo that it proceed & exceed it ſelf unto the ſide, it then produceth in the ſick perſon a reſolution or palſie. For the blood flowing abundantly into the great Artery, ſo that the intercoſtal Arteries are thereby filled; and ſo that alſo thoſe little branches that penetrate throw the holes of the vertebra, of the *Thorax* into the ſpinal marrow, do ſwel, the Nerves there paſſing forth from the ſpinal are compreſſed, and being thus preſſed together they cauſe a reſolution, and Palſy.

Another there is *of the one ſide or other* of the Lungs, and not in the whole, and then there is a pain and heavineſs felt ſenſibly and perceived in the one or the other part thereof; if the upper wing be diſaffected and ſuffer, then the Affect extendeth it ſelf even to the Channel bones of the throat; but if the lower, then

then it reacheth unto the diaphragm. The vein on that ſide wherein the inflamation is, ought to be opened.

II. One is from *pure blood*, from whence there ariſeth a Phlegmone. It *is known* by this, that there is produced a bloody ſpittle, unleſs haply the diſeaſe be extremely Crude; a ſtreightneſs of the pracordia and of the whol Breaſt oppreſſeth the party; an extraordinary great & intence heavineſs contracteth the ſtern (to wit, that part of the Breaſt where the ribbs meet) and the Back; the Patient is not much afflicted with any acute Fever. But now that blood, *ſometimes* in the *Angina* or quinſy, breaketh forth violently out of the Jaws; and then they die within ſeven daies; if they eſcape theſe, then they become purulent. And becauſe that in thoſe that are in the midſt betwixt old age and the vigorous flouriſhing eſtate of thoſe of ful and perfect growth, the expulſive faculty, is more Languid and weak than in yonger perſons, they are therefore not to be cured but with much difficultcy. *Sometimes* it is derived thither from the Pleuriſy, and yet not by the veſſells, becauſe that there is no convayence for them; but by the membrane that inveſteth al the parts of the Thorax; and then in this caſe likewiſe, in regard there is a tranſlation of the matter from the outward parts unto the inward, that is to ſay, from the leſs noble unto the more noble parts, and ſuch as are nigher unto the Heart, the Malady is therefore the more dangerous.

Another from *Chollerick* blood; from whence it is that the Quinſey is frequently turned into the Peripneumonia; and the Luugs being of a ſpungy ſubſtance doth eaſily admit of a Cholerick and the thinner ſort of matter, and drinketh it in more deep than other. *It is known* by this, that the cough rayſeth a yellow ſpittle and that that is not mingled with much blood; the ſtreightneſs of the Cheſt, and the ſence of weight and the veins is leſs than in the former differences; and laſtly, *it is known* by this, that the patient in his fever is even ſcorched with a more ehement and intence burning heat.

Chap. 3. *Of the ſtreightneſs or narrowneſs of the Lungs.*

The ſtreightneſs of the Lunges is the interception of the veſſels thereof by reaſon of obſtruction, Compreſſion, or exſiccation, producing a Cough, oppreſſion, and a difficulty of breathing.

As for the *Signs*, *Cauſes*, and Cure thereof, let them be al ſought out from the differences.

The differences are taken from the Cauſes and the parts affected.

I. One is of the *rough Arteries*, (touching which let the Reader adviſe himſelf further, and ſatisfy himſelf fully from the following differences) the which proceedeth from an obſtruction &c.

Another is of the *ſmooth Arteries*, *which is known* from the breathing, which is with much difficulty: yet not only in the beginning, but likewiſe in the increaſe thereof; from the pulſe, being altogether various, unequal, intermitting, great, ſwift, ſlow, rare, frequent, vehement, by reaſon of the Combate betwixt nature and the Morbifique cauſe, ſhe being not able to expell the fuliginous or ſooty fumes, by reaſon of the ſtreightneſs and narrowneſs of the Arteries; from the palpitation or beathing of the heart (it being now very much oppreſſed) and from faintiug and ſwooning. It ariſeth either from *thick Viſced* or clammy, and flegmatick humors; (and then the pulſe is by the extenſion) it differeth much from it ſelf, but yet it is for the greateſt part more equal in it ſelf; and this is not very hard to be cured, eſpecially if it newly begun; the cure remaineth to be ſpoken of below. Or elſe it ariſeth from a *little riſeing* or ſwelling, and then the pulſe is hard by extenſion and dryneſs; its inequality is uniform, by reaſon that the Cauſe is more fixed. Touching the *Cure*, we ſhal ſpeak more anon.

II. One is (underſtand this of the *Rough Arteries*) from an *obſtruction* by blood, a humor &c. Touching which more below. Another from *Compreſſion*, and almoſt from the very ſame cauſes, as in the dropſy. Another from *Exſiccation*, very frequent and incident unto ſuch as work in Metalls; and this for its cure requireth almond milk.

III. One is from *blood* obſtructing or compreſſing the rough Arteries expelled and driven forth thither either from the Lungs, or from elſe where, which is to be driven back and evacuated. And laſtly, if it become Clotted, by *Oximel ſcillitick*, *and a poſſet*, that is, a mixture of water and vinegar, (ſix ounces thereof in weight) ſo that it be pleaſant to drink, and likewiſe ſo that by reaſon of the vinegar it provoke not to Cough; (and this to be adminiſtred blood warm three or four times in a day) it is to be diſſolved.

Another from a *Humor*, and eſpecially that

that

that is Phlegmatick, which is *plentifull* and abounding, and then (if by distilling it flow forth only into the Membrane that surroundeth and grindeth in the throat) it obscureth the voice, and causeth a hoarsness: if this humor fal into the hollow, & the channel of the throat it produceth a little sheeps cough (as we cal it) with a certain sence and feeling of an acrimony that continually provoketh to Coughing, or else the sayd humor is *thick and viscid* or clamy; but this is very rarely generated in the Lungs in regard that they are nourished by a thin and pure blood; it almost alwaies ariseth from Catarrhs falling down from the head; the which in tract of time by the force of the heat is changed into a Glassy, or Plasterlike Phlegm which being by the many distillations returning in a round (as it were) and circuit stored up in great abundance, causeth the *Asthma*. The same likewise exceedingly afflicteth the Patient with a kind of dry Cough, by the which there is hardly any thing expelled and brought away; it rendereth the breathing difficult; and causeth in the taking in and puting forth of the breath a snorting or wheezing, as we term it, in regard that it is impacted, and pertinaciously stuffed into the Lappets of the Lungs; it hath signs and tokens foregoing of a distillation either from the head, brain, or from the neighboring parts. In the *Cure*, whilest the matter is in preparing, with *Colts foot*, *Horehound*, and other attenuateing and cutting Medicaments, let *Borrage*, *Liquorish*, and *Raysons* be mingled together. The purgation is wel performed with *Agrick*.

Another is from the *Pus*, or purulent Matter that is powred forth out of some Apostume; and then expectorating Remedies have their place.

IV. One is from *Causes that in their whol kind are preternatural*: amongst which are, I. *Little Substance*, some of them very hard and solid, others of the consistence of old Cheese; all of them included in their own proper Cisterns and Bladders, and producing the *Asthma*. II. *Little Risings* or Swellings, which *have their Original* from a matter collected in one part, and thence strutting and standing forth, without any token or sign at al of any distillation preceding, and these said swellings adhere and stick close unto the *Aspera Arteria*, or great rough Artery. They are *divided* into those that are *Crude* or raw, (which are very hardly known, and they are never suppurated, neither have they any Feaver joyned with them) and such as are *Suppurated*, in the which the *Pus* or filthy corrupt matter is so strictly and closely shut up in its little Membrane, and proper bladder, that hardly can there any noysom and stinking smell expire and breath forth of it into the Body. Then the sick persons are of a black & blew, or leaden color, their Tongue is repleniished with a certain kind of Clammines, especially when they have abstained long from Food: the Urine is dyed, and hath a tincture, either from the vehement motion and stirring of the Body, or else from meat and drink that is hotter than ordinary; after an extream and violent motion, there are little pils, and smal round bals or pellets (like unto a smal Pease) included and wrapped up in a little Membrane, ejected and cast forth of the Lungs. There is then likewise a troublesom Cough, and a difficulty of breathing excited. A pain there is that continually affecteth sick persons, but then chiefly when they are moved with a more vehement and violent motion. The Patient *recovereth not to be well* of these, unless, 1. The Suppuration be speedily wrought. 2. Unless the Suppuration when it is made suddenly break forth. 3. Unless it tend upwards, and be cast forth by Coughing. 4. Unless al the *Pus*, and the whol filth be evacuated and emptied forth. 5. Unless the belly (that is, that Cavity in which the *Pus* or purulent matter was contained) be perfectly agglutinated and united as formerly.

Chap. 4. *Of the Wounds of the Lungs.*

THe *Wounds* of the *lungs* are wel *known* by the difficulty of breathing, by reason of the hurt the organs have received; by the casting out of froath and blood by the mouth with a cough; by the spitting up of a red and froathy blood out of the cheft without any pain at al; by the swelling and strutting of the neck veins; and lastly by the various color of the face one while red, and as soon again pale and wane.

Now these wounds are *Caused* in a twofold manner. For *Somtimes* it so chanseth that *the fleshy substance of the lungs may be hurt*; and then, in regard that the blood destilled in the Cavity of the *Thorax*, and that neither a spitting of blood, nor any Cough whatsoever urgeth the party, the breathing thereupon is not without much difficulty; ther appeareth a virlsitude or interchange of heat and cold, by reason of the exhalations and fumes from out of

of the heart, *Sometimes the veins of the Lungs are affected*; and then there floweth forth in great abundance a blood somwhat red, black, and frothy: the Cough likewise is perpetual, unless perhaps there be present a prostration and decay of the Natural strength and vigour, or an oppression of the Lungs from the blood.

They are Cured, I. If the profuse flux of blood be stanched, and the inflamation unto which the Lungs by this means becometh obnoxious, be prevented and hindered by venesection. II. If the blood (in him where it was poured forth into the Cavity) subsist, and abide there. III. If (when the sayd blood cannot flow forth by reason of the narrowness of the wound) the said wound be widened with a penknife. Among those Medicaments that stanch and stop the blood, there are these, viz. The *Strawbery bush, Betony, Scabious*, the herb *Ladies mantle, sanicle, Comfry, &c.* without, these are altogether void of any biting quality, viz. *Bole armeniack, Frankincense, &c.* [Read more of this subject in the guide to Physick and Chyrurgery, *Riverius* Practice of Physick, and his Observations, and the London dispensatory: al the last Editions englished by me]

Chap. 5. *Of the Ulcer of the Lungs, or Phthisis.*

Phthisis is an Exulceration of the Lungs, from a sharp corroding matter, with a gentle Fever, a Ccough, and a spittle that is both bloody and purulent; by the which the whol body is sensibly, and by little and little consumed and extenuated.

The *Subject* of this exulceration is the Lungs together with the parts thereof, to wit, the fleshy substance, the lappets, the vessells, and the Membranes; *in those* especially, that have their heads easily and soon filled, and where the head sendeth many distillations unto the organs of breathing; *in those*, that from their very nativity have their Lungs of a vicious substance, that is, such as is tender, soft, and easily wasted, as being most subject to corruption. And hence it is that such as are descended of a tabid stock (that is to say, those that issue from parents affected as beforesayd) do all of them at the length (as it were by a right of inheritance) necessarily wast away and consume in the aforesaid manner: *in those*, that natura lly have a streightness and narrowness of the Chest, and likwise a depression of the same, a streight neck or narrow throat, a lean and spare body, and their shoulder blades sticking out behind them like as if they were wings.

The *Signs* are, a *Gentle* and moderate Fever proceeding from vapors elevated and arising out of the Lungs, and assaulting the heart by their sudden and violent irruption therunto with which there are also joyned other feavers that are otherwise sometimes Erratick and fleeting, and sometimes again invading the patient after the manet of a Tertian, whilest that the humors within the veins by that heat as were kindled and set on fire corrupt and putrefy; and this (the truth is) being by its continuance and without any the least intermission, turned into the Hectick, immediately after meales, and in the night time, (like as do others) increaseth and groweth more prevalent. 2. *A frequent Cough* (like unto that of foxes) without any great pain, which cheifly afflicteth and troubleth the party in the night time; and it hath its existence from a matter that is sharp, by reason of the irritation of the Lungs. 3. *A bloody and purulent spittle*: but this is not in al. Some there have been found, who after their retching, and the spitting up of a liquid and yellow humor, (being soon after seazed upon by a light and gentle fever) have thereupon begun to fal away and wast; and after some time, have cast forth by retching a certain smal quantity of blood, together with a kind of *Pus* or corrupt matter: and many have been by sensible degrees taken away in whom (throughout the whol course of their lives) there appeared nothing at al of this bloody and purulent spittle. But I must tel you, that this *Phthisis* is incident unto those that are young, rather than unto aged persons, in regard that young persons most commonly abound with blood, and consequently are affected with the heat and acrimony thereof, with the laxity or loosness of the vessels, and likewise the hardness of the same, and in regard likewise that these excercise themselves in a more violent manner, and have little regard to their diet. This hath one thing singular as propperly and peculiarly belonging thereunto, to wit, that it proceed from the very substance of the Lungs, it is then frothy, and if it be put into the fire it stinketh, and is very offensive to the scent. 4. The *extenuation* of the *body*, which is from the aforesaid continual, but gentle fever, the which by its fiery heat (dispersed throughout the whol body dissolving the Arterial blood, the mingling where-

of

of together with that of the Veins is altogether necessary unto Nutrition) hindereth the Concoction of the Aliment in the whole body, and by its preternatural heat wasteth and consumeth that which is Concocted and stored up.

The CAUSE is a sharp corroding matter, fallen down thither; of which we shall speak further in the differences.

The CURE *is not to be despaired of*, no, not though it be attended with an Ulcer already appearing. For *Galen* sendeth such to *Tabæ* a City in *Cilicia*, and prescribeth milk for their Diet. Yet notwithstanding it is something *Difficult*, *as wel* in regard that the filth and purulent matter sticking in that soft and Spungy flesh, cannot without a Cough be purged forth; by which the Lungs are from day to day more hurt and prejudiced; *as because* that in this dayly motion of respiration or breathing, (unto which there is moreover added and adjoyned a violent cough) there cannot possibly be any Consolidation made; *and also* (in the third place) *because* that Medicaments in their ful strength and Virtue cannot penetrate so far; and lastly, because that Feavers require moistening Remedies, which are altogether hurtful to an Ulcer. The Cure *hath chiefly respect* unto these six things in Particular. I. The removal and *taking away of the Catarrhe*, touching which more below in the Difference. II. The *Cure* of the *ulcer*; & here there is commended *Flores Sulphuris* (or the flower of Brimstone, as we commonly cal it) with a soft and rere egg, syrup *de Erysimo*, or water Cresses, of *Lobelius*, of the Juyce of *Ground Ivy*, with the Flower of Brimstone, of *Marsh-Mallows* of *Fernelius*; of the Juyce of *Mouse Ear*, *Milfoil*, and Citron Rinds *Prepared*; the Decoction of *Pimpernel*, *Walwort*, *Sugar of Roses* Old, with the Whey of Goats Milk; the *Secret* of *Freytagius*, (of which you may see further in the same Author, in his tract of *Opium*) China Root, Guajacum, &c. Let the Patient every hour lick in the *Loboch* of *Walwort*, with the Conserve of Red Roses. III. The *Correction* of the Blood, that so that that floweth unto the part affected may be good. And therefore in the Diet, *Milk* is accounted wholsom, because that by its serosity it clenseth the Ulcer, and by its Caseosity (if we may so term it) or Cheesie part it Consolidates: and then (lastly) by its Aereal and buttery Fatness it Humectates and moisteneth the wasted and extenuated Body. And certain it is that Goats Milk ought to be taken at dinner time (at least, if there be present no great Feaver, or pain of the head) that so it may not sour in the stomach or Cause unsavory belchings. At Supper, the *Emulsion* of white Poppy Seed, and of the greater cold Seeds, of each one dram, of the Milk of sweet Almonds one pint, also milk Boyled with Rice. If Milk be not thought convenient, *Barley Hulled*, and with the broth of a Cock reduced into a Cream. Distilled Medicaments are not here approved of, because that their Nutritive faculty doth not transcend the Alembick. IV. The *Removal of the Feaver* by those things that cool and moisten. V. The *Depulsion of the Extenuation* by those things that have in them a power restorative; And here *Pultises* of Milk, the Yolks of Eggs, fresh Butter, Sugar, and the meal or flour of Barley and Rice, have their place. Then let a *Bath* of warm Milk be made for the sick person; after which let a Rosted pullet that hath been fattened with Milk succeed; and then the distilled liquor of *Snails*, and the *Aqua Mirabilis*, of which we may see more in *Zacutus* his Eight Book. VI. The *Nersion of the whole Nocturnal Colliquation by* Sudorificks *or* Sweats. Then in the evening we must administer the Conserve of Red *Roses*, with the Syrup of Poppy, of Jujubes, and *Diacodium*. The Breast and the Back-bone are to be anoynted, and a Liniment Resumptive (as Practitioners cal it) with the Oyl of Roses and Violets, &c. The Phthisis *is divided* in a twofold manner, according to the quality and condition of the Causes, and its Duration.

I. One is from *Blood*, which being got forth into the Lungs, there clotteth and putrefieth. And in this (if al things else be answerable) Phleborotomy hath its due place, in the very beginning thereof.

Another from a *sharp Humor*, whether it be Serous or Cholerick, which is either sent from the Head, (neither may it be cast forth by Coughing; and then the Cure is to be ordered according to the Nature of the Catarrh) or else it is poured forth from the *Heart* into the Lungs; or else it regurgitates from the suppressed *Courses* or *Hemorrhoids*; and then the Cure must be sought for in its own proper place.

Another, but that is very rare, from *Sweet Flegm*,

Flegm, if in too great abundance it flow unto the lungs, obstruct the lappits therof, render the substance thereof over moist, and there putrefie, by reason of its long abode there, and for want of Ventilation.

Another from *Pus* or corrupt stinking matter, upon the breaking of the impostum of the Quinsie, of the Uvula, the Pleurisie, &c. And hence is that of *Hippocrates*, those (saith he) that after a Pleurisie happen to be impostumated, if in forty daies they be not freed thereof they then become Phtysical.

Another by *Contagion* from the breath of the Phthisical; and hereunto belongeth that of the Sea hare, corroding and eating through the Lungs by its specifical Poysonous quality; and likewise the breath and stench of Cats and Dogs, sent forth especially in the dissecting and opening of them.

II. One is *Recent*, and but newly begun; in which the Symptoms are not so strong and Violent.

Another such as is confirmed, and of a long continuance, in which the Cheeks wax black or of a Leaden color, with a Paleness in the Face, although (I grant) at somtimes the Cheeks, by Reason of Vapors ascending from the Lungs, may appear to be of somthing a red color. The *Breath*, (by reason of the imbecillity of the breathing Faculty, or the obstruction of the *Bronchia*, (we cal them the Lappets of the Lungs) either from store of purulent matter sent thither, or else from the many Excrements that in the weakned Lungs are gathered together and heaped up) becometh very difficult, and is hardly drawn. The *Pulses* are one while languid and slow, another while quick and swift; one while hard, by Reason of the dryness of the Body; and another while soft, in regard of the Humid matter moystening the Arteries. *Sweats* in great abundance break forth in the time of sleep by reason of the debility of the natural Faculty. And at length the Malady having now gotten the upper hand, certain smal parcels and portions of the putrefied lungs are cast forth, with an intolerable strength. The *Hair* of the Head sheddeth and falleth off, by Reason of the defect and want of Aliment, and the Corruption of that that is bred in the Body. The *Nails* become Crooked, that Flesh that was wont to be at the Fingers ends being consumed. A *Smal sort of Lice* are generated, in regard of the Corruption of the Aliment. The *Extream* parts, especially the Feet, by reason of the extinction of the Native heat, are much swollen. And at length the Flux *Diarrhœa* (together with a suppession of the Spittle) followeth upon it, from the weakness of the retentive Faculty of the Stomack and the Intestines. See further in *Freytagius*, touching the *Phthisis*.

Title, V. *Of the Diseases of the Thorax or Breast.*

Chap. 1. *Of the Inflamation of the Mediastine, or the Transverse Muscle, and the Tumors of the Diaphragm.*

THe Diseases of the Thorax or Chest, are, the *Inflamation* of the *Mediastine*, the *Swlling* of the *Diaphragme*, the *Pleurisie*, the *Empyema* or Constipation, the *Consumption* or wasting of the *Back*, and the *Worms* of the *Back*.

I. The Inflamation of the *Mediastin*, (that disjoyneth the Lobes of the Lungs) *is known* by the continual Feaver, the frequent thick and swift breathing, an extream and intense burning in the Breast, a smal pain at the stern, unto which the Mediastine is tyed, and by the spitting and casting forth of that that is at first red, and then afterward Yellow. But the matter that is thus cast up (because that it is gathered together betwixt a double Membrane, as it were, and is not easily Evacuated, unless the said Membrane be eaten through) is not in any great abundance. *It ariseth* from the Blood, and chiefly the Cholerick. *It is Cured* after the manner of other Inflamations. Where take notice, that the Repressing Medicaments ought indeed, to be cold, but no way astringent; and that in this Case the *Oyl* of *Violets* is cheifly approved of; which must be made blood warm (unless it be in the summer time) and the Breast therewith anoynted.

II. The *Tumors* or swellings of the *Diaphragm* are of two sorts.

Some of them are *Cold*, which *are known* by the difficulty of Breathing, the stretching out of the hypochondria, & yet no swelling appearing in them upon the touch, and no deliry or dotage

accompanying it. *They arise* from a matter that is crude and thin, penetratting into the thickness of the diaphragme, either from the compression or wounding thereof. *They are hardly Cured*, if they be of long standing, in regard they bring the sick person to a consumption: but *more easily*, if they be Recent and newly begun: but not at al, if there follow a deliry or doting. *First* then we are to administer those medicaments that evacuate the prepared matter among which those we term *Hydragoga* or water purgers, are especially commended) and *afterward* with those things that mollify and digest; and cheifly *Sarsaparilla*, unless the humor hath begun to be hardened.

Others are hot, which *are known* (in their *first rising*) by a feaver that is both continual and accute, a pain, the breathing little, but often, the extension of the *Præcordia*, a palpitation or panting neer unto the diaphragm, and somtimes a kind of leaping in that place: (in the *Progress*) by the doting that attendeth it, the unequal Respiration or breathing, being sometimes smal and sometimes great; swift, and as soon again altogether as slow and rare. *They arise*, from a blood hot and cholerick. The *Cure is difficult*, in regard of the extream peril therein. It likewise resembleth the inflamation of the Lungs.

Chap: 2. *Of the Pluresy.*

THe Pleurisie is an inflamation of the Pleura Membrane, and the adjacent muscles, arising from the influx (or flowing) of a hot humor, with apricking pain of the side, a Cough difficult breathing, a continual acute Feaver, a hard pulse, unequal, and frequent.

The SIGNS *Pathognomick* (as we cal them) are, an extream *pricking pain*, because the aforesaid membran (which we cal pleura) being of a most exquisite sence, is extended by a sharp matter. A *Puls that is hard*, unequal, and bearing a kind of resemblance with a Saw, in regard that the part that is inflamed is Nervous. A *Cough*, by reason of irritation and transudation, (to use the terms of practitinors) which in the beginning is dry, but in the progress adjoined with and attended by a spittle that is bloody and purulent. A *Breathing* frequent and but very weak and smal, in regard that the muscles (by reason of the extream pricking pain) cannot be sufficiently dilated. An *acut feaver*, in regard that the inflamation is so neerly neighboring unto the Heart. And al these signs ought to conspire and meet al together, and not to be present in a scattering manner, one after another.

The CAUSE is an extream hot matter; or blood, either pure, or impure which floweth forth especially out of the *vena cava* (or great hollow vein adjoyning to the heart by the Branch that is termed *Azygos*, into the little thin stems and sprigs thereof; which being opened, broken or the pors therof dilated, it runneth violently into the plura membran; and somtimes it likewise rusheth thereunto through the upper intercostal membran; but more rarely, through, the thoracical, and that we term *mamaria*. The Supply of the aforesaid blood is from a Plethory, Cacochymy, and the overgreat heat of the Sanguifying bowels. It is promoted and furthered by various external Causes, and cheifly a sudden chilling, and cooling, cold northern blast after the great and warm south wind, over much and violent exercise, &c.

There is *good hope of a* CURE; if the spittle receive a mature and speedy concoction, and be easily and fitly cast forth; and if on the foruth day the sick person spit forth that that is white, light, equal, and this by coughing three or four times be terminated on the seventh day, and if on the seventh, that then it be not extended beyond the leventh or forteenth day at the furthest; if on the crittical day there happen a flux of blood out of the nostrils, the Hemorrhoids, or the womb, with signs of Concoction; if (which is indeed very rare) there chance a *Metastasis* or translation of the matter unto the joynts and the members of less account. It is *doubtful*, if there be spit forth only thin *Ichores*, (which are a sort of little ulcers) if yellow choller very much mingled with spittle, appear long after the beginning, in regard that hereby is signified that nature attempteth nothing against the disease. If the Spittle be yellow, sincere, and mingled with much watterishness; if the said spittle be Glutinous and Clammy, because this clammy quality is contracted from a burning and scorching heat; if it be ful of a green rustiness and very frothy; if it be black, because hereby is signified the pravity of the humor; and the extinction of the native heat; if striving much by reaching doth not stay the Cough, and facilitate the Breathing, because hereby is manifested either the Malignity of the matter; or

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the weakneſs of the expulſive faculty; it after fourteen dayes it turne into the *Empyema*; if it degenerate into the *Peripneumonia* or inflamation of the Lungs; if it befal aged perſons, becauſe that through the want of heat the matter is not concocted; if it happen to thoſe that have thick bodies, and that are accuſtomed to excerciſe, al things elſe being thereunto anſwerable. *No hopes at al*, if in it there be nothing ſpit forth; if the pulſe be hard, little and by reaſon of heat very thick, and moſt frequent; if there happen (in the begining thereof) a flux of blood, without any alleviation or eaſe, in regard that in this caſe the patient moſt uſually dyeth on the fourth day; if the pleureſy be ſo great, that the liver and the ſtomach be likewiſe drawn into a conſent and fellow ſuffering, and that alſo the flux *diarhœa* follow upon it; if the pleureſie invade a Cachectical Body, after ſome other long continued diſeaſe; if from the ſpittle there ariſe a noiſe and much ratteling in the breaſt, and that the countinuance be dejected; and the eyes veyled and blind with miſts and darkneſs, or, (as many times it is) with the yellow Jaundis. The Cure (when we ſet upon it) *hath reſpect*. I. Unto the *humors* already *flown* in, and likwiſe to thoſe that are like to ſucceed and follow, which are to be drawn back. II. Thoſe that are at *preſent flowing*, which are not to be intercepted, neither driven back, but derived. III. Thoſe that are *impacted* and ſtuffed up in the part affected, which are to be diſperſed and ſcattered, or removed by any manner of means. IV. The *Pain*, which is to be mitigated. V. The *Feaver*, which is to be kept under and moderated. VI. And laſtly, the natural vigour and *powers* of the Body, which are to be Corroborated. Touching al theſe, let what followeth be wel obſerved. 1. That *Veneſection* is with al ſpeed to be adminiſtred, on the oppoſite ſide, for repulſion, if the body be Plethorical; if it be not directly on the ſide affected. 2. That if the courſes or the *Hemorrhoids* be ſuddenly ſuppreſſed, then the evacuation is in the firſt place to be out of the ancle vein, or that of the Ham; but if the ſuppreſſion hath been of long continuance, out of the arm vein. 3. That in derivation, the blood is to be drawn forth ſo long, as until the color of it be changed. 4. That fomentations may be adminiſtred (to moderate the *pain*) in a body that is not Plethorical, yea even before Phlebotomy; but not ſo when the Body of the patient is Plethorical. And for this end and purpoſe excellent good is the Unguent made of dialthea, or of *Marſhmallows*, one ounce thereof, and half an ounce of the oyl of ſweet Almonds, with the pained parts ought to be al over anointed, and upon it the fine ſmall pouder of *Camomile flowers* is to be lightly ſtrewed, and then the leaf of a Colwort or Cabbage anoynted with Butter or hogs fat is to be laid upon it very hot (and this is to be continually done dureing the whol time of the cure) adding likewiſe a little of the diſtilled oyl of dil Champhyre. 5. That forthwith in the very firſt beginning a ſweat may very fitly and properly be rayſed and excited, by exhibiting, either of the water of the *Poppy Roſes*, three ounces thereof, with one dram of the pouder *of Corral*, red Filberds, the Jaws of the Luce-fiſh or Pike; or elſe of the *ſimple Mixture*, one dram, with the water of *Carduus Mariæ*, or of the *Spirit of Nitre*, with the *ſpirit* of *Wine*, of *each one ſcruple*, the *ſpirit* of *Tarttar* half a ſcruple, in the water of Poppy *Roſes*, or elſe the ſimple water thereof, &c. 6. That pectoral *decoctions* (together with their appropriates) are continually to be adminiſtred, (after the premizing of univerſals) that ſo the ſpitting may be facillitated. 7. That theſe following have in them a *Specifical* propriety of operation, to wit, the flower of the *wild poppy*, of the *dry dock*, and of the white *Eglentine or ſweet Brier*, the ſeed of *Carduus Muriæ*, the Bulls pizzle, or the pizzle of the Hart or Stagg, the ſhavings of the Boars tooth &c. (ſee *Petræus*) Al which are to be made into a very fine pouder, and then to be put upon bread that hath been wel dipt in *Scabious* water. 8. That the *impoſtume* may beſt be broken with a Cataplaſm of the *herb kaly*, the roots of the *White lily* while they are new and freſh &c. applied unto the ſide that is payned. 9. That after al thoſe aforeſaid, *Chalybeated milk* (unleſs a Feaver hinder it) is the beſt.

As touching the differences.

I. One is (as we may term it) *Legitimate* and exquiſite, (unto the which only whatever was ſayd before, as to this poynt, is to be referred, and underſtood thereof) which. I. *ariſeth* either from *blood* that is pure; (in which there is a bloody ſpittle, an extenſion of the veins about the Temples and the forehead, with a ſence of heavineſs neer about the hollow of the Eyes, & the fore parts of the head) or elſe from a *blood* that is *Cholerick*; (in which the ſpittle is yellow; and which if it ſuddenly vaniſh without any apparent cauſe, the ſick perſon is immediately ſurpriſed with dotage; It is beſt and ſooneſt of al cured by opening the ſalvatel-

la vein) or thirdly from a *Phlegmatick* blood, (in which the spittle is frothy, more flow, and as it were sweet, the syrup of *Zacutus* in the Eight Book, Chap. 3. of his History, is very efficacious in this kind) or else, lastly, from a *Melancholy* blood, which very rarely happeneth by way of afflux. II. It affecteth either the *interior tunicle* (and then the sick person doth with the more ease lie and rest upon the grieved side; in regard that now the tumor is not immediately under it, neither doth it in this case distend the grieved part) or else the *Exterior*, about the bones, (and then the case is quite contrary unto the former) or otherwise *both of them*, and then the patient lying upon the back is the freer from pain. III. It affecteth either the *right* or the *left side*; or the *superior part* extending it self to the throat, or else the *inferior* reaching even unto the *Hypochondria*.

II. Another is *bastard*, and spurious, which is distinguished according to the quality of the matter, and the manner of its situation. One is from *Windiness* (in which the pain is not fixed, but runneth from place to place; it is mitigated, and oftentimes wholly dispelled by fomentations; there went before causes generating windiness; the pouder of Cummin sprinkled and strewed upon a Cabbage leafe anointed or spread over with butter, and outwardly applied unto the pained part, is very successful in giving ease:) Another from *a distillation*, which hath with it a sence and feeling of a defluxion, or something at certain times falling down; it is exasperated by being touched, neither doth it any whit yield unto fomentations; the cure is to proceed according to that of a thin catarrh. Another is *externally* when the blood thorow the branches (from the *Axillaris ramus*) is emptied forth into the External Muscles of the Thorax; and then the pain waxeth very intolerable upon the pressure thereof; lying down upon the grieved side is extreamly troublesome; there is in this case nothing cast forth by sputting, and the transition or passing over of it into that which above we termed *Vera*, or the true and exquisite Pluresy, is very facile and easy.

Chap. 3. *Of* Empyema.

Empyema is the Constipation of the Cavity of the Thorax or Breast from an abundant purulent matter, causing and producing a difficulty of breathing with a Cough and a purulent or rotten spitting.

The *Subject is* the Cavity and capacity of the Thorax being that void space betwixt the Thorax and the Lungs; albeit the Lungs themselves and the vessells thereof may not here be altogether excluded. But now indeed, because that the Lungs by the Mediastine is divided into two parts, the *Pus* is collected either in the one or the other part, or else in both of them together.

The *Signs* are a difficulty of breathing with a spitting, and a perpetual purulent Coughing; a sense and feeling of a heavy and dul pain in the bottom of the Thorax and especially neer about the diaphragm; a redness of the Cheeks, and that chiefly about three or four hours after meals &c.

The *Cause* is that very purulent filth it self filling up the Thorax; the abundance whereof together with its stinking smell, and acrimony, inflicteth very sad and grievous pain and mischief.

There is *some hope of a cure*, if upon the opening or burning, there flow forth a white *Pus* or corruption; if it be rather on the right side than the left, and that the Patient be strong and able; *No hopes*, if the whole Thorax be lifted up in the breathing, if the whol cavity be possessed; if the left side; if upon the lancing or burning of it, that which issueth forth be somwhat bloody, and il savored; if upon the same occasion *Pus* or filth, or else a water flow forth generally and in a great quantity; if in them the searching instrument or probe be colored by the *Pus* and filth like as by the fire. *It respecteth*, I. *The Concoction* of the *suppuration*. II. The *breaking of* the *Impostume*, which is effected by the eating of salt meats, by frequent retchings and spittings &c. III. The *Evacuation* of the *Pus* or matter; where we are to have eye upon natures motion and which way she tendeth, to wit, whether upwards, or downwards unto the intestines, or the bladder. The spittle may be notably procured by the oyl of *Sulphur* and the *spirit* of *Turpentine*, pectoral decoctions being therewith wel mingled. There is likewise much commended the juice of *ground ivy*, of *Horehound*, made up into a lohock with *Myrrh*, *Frankincense*, *diapenid*: Touching the *decoction of Ebony*, and the *syrup of shel Crabs*, see more in *Zacutus* his 8. Book, Chap. xi. If these prevayl nothing, we ought then to proceed unto *Section* or lancing, and also to *burning*; touching which consult those Authors that have written upon this subject.

As concerning the *differences*; one is from a *rupture* of some proceeding *Apostem*, as of the quinsey, the Plurisy, the peripneumony, whenas they are terminated by suppuration.

Another, when out of a vein *opened*, broken, or *gnawen asunder*, a portion of the blood issuing forth into some particle of the Lungs is converted into *Pus* or corrupt filth, & in the top thereof formeth and frameth for it self a bladder; of which we have spoken sufficiently above, in its proper place.

Another from *a distilation fallen down from the Head unto the* Breast, and in fourteen dayes time not purged from thence by spitting.

Chap. IV. *Of the Consumption or wasting, and the Worms of the Back.*

THe *Consumption* of *Back* is, when the Back withereth, pineth and wasteth away. There are four *species* or kinds thereof. I. From *Excessive venery*, and immoderate use of women; and then it seemeth to the party, as if Emmets from the superior parts, and out of the head fel into the *Spina* or Backbone; the seed passeth forth both by day and by night; there is no fever there at the first, but within a very short time there is a fever attending it. II. When the natural inbred heat of the *Spinal Marrow* is in a manner overwhelmed by an *abundant store of blood*, and thereby wel nigh extinguished. III. When it is overmuch *dried*, those *passages* being altogether shut up throw which the Nutriment is carried and conveyed unto the same. IV. When there is a depraved baneful distillation continually incumbent and lying thereon. For this see *Salius Diversus*, and others.

II. The *Worms* of the Back (called *Crinonis*) most commonly infest and trouble Children and infants. *They are knowen by this.* That these infants eate indeed, but are never a whit nourished thereby; yea they wear and wast away, becaufe that in regard of that most troublesom perpetual itching that followeth them, and there being now and then lanced, they can never be quiet, but are alwaies restless; and by this likewise these may be knowen to have worms, when being brought into the Bath, and there forcibly rubbed, there bud forth out of the Skin certain small hayres resembling ashes, or else of a blackish color. *They arise* from a viscous and Clammy matter shut up under the skin, in the Capillary veins. *They are taken away* if the infants be anointed on their backs with a Liniment formed of whearen flower and hony, and the little heads that these smal worms in a short time thrust forth, be cut off with a Razor, &c.

Title, VI. *Of the Symptoms of the Lungs, and the Thorax, or* Breast.

Chap. 1. *Of the Vices*, or things amiss, *in the Breathing.*

The Symptoms of the Lunges, and the Thorax, are, the *fault in breathing*, the *Asthma*, the *Cough*, and the Hemoptysis or spitting of blood.

Unto the *faults* of *Respiration* or Breathing *there belong.*

I. *Macropnœa* or a *great* Respiration exceedingly distending the Breast and drawing unto it abundance of Air; which happeneth by the violence and strength of fevers in which the heat of the heart is inflamed, so that thereupon there is a great want and indigency of refrigiration and drawing forth of fuliginous sooty fumes.

II. *Tachypnœa*, or a Respiration greater and *more frequent*, what is agreeable to the course of nature, its use being augmented by the heat & sooty fumes. *It ariseth* either from the distemper of the heart, the Lungs, the Breast; or else from the abundance of hot vapors and exhalations, especially when the faculty is weaker than that it can suffice for the Just and right dilating of the Thorax.

III. *Dispnœa*, or the *difficulty of breathing*; arising from the default of the organs themselves; which is easily *known*, for it manifesteth it self unto the sence of its own accord. *It ariseth*, 1. either from things *external*, to wit the fume of quicksilver, the smoke of coals, Calcarth, or vitriol, lime, anoynting with Mercury, and other such like, or else from *internals*, that produce the streightness and narrowness of the vessels, either by obstruction, or by compression; of both which we have

have spoken before. It is wont likewise to fail by Reason of extream drineſs, (although this very rarely happen) when the Substance of the Lungs by an Ulcer is so consumed or dryed away, that it can now no longer be dilated; and this somtimes chanceth unto those that are Phthisical, before they dye. II. Another is *Essentially* such; and unto this, what hath hitherto been spoken doth properly belong. Another by the *Consent* and greement, 1. Of the *Thorax*, whose motion is hindered by the fault either of the Spirits, or of the Muscles. 2. Of the *Diaphragm*, whose motion is hindered, either because the Nerves inserted and implanted therein are hurt; or else because the Vapors exhaling from the inferior parts reside and settle neer about the said Diaphragm; or else lastly, because that a Waterish humor presseth it down, &c. 3. Of the *Liver*, *Spleen*, and *Stomach*, which somtimes are distended, and swoln. III. One is *Lighter* or less, in which the breathing is thicker and more frequent, yet without any noise or panting, and of this must be understood what hath been already said. Another is more sad and *Grievous*, which we cal *Asthma*; touching which more anon.

IV. *Apnœa*, or the taking away of al sensible Respiration, accompanyed with an extream great danger of Suffocation. *It ariseth*, partly from the very same Causes, peccant in the highest degree, and partly from the Contrary, to wit, Necessity deminished, or the use taken away. It happeneth somtimes after the eating of *Mushroms*, and somtimes in the most sad and grievous suffocation of the womb, and likewise in the Syncope or swooning fits. The *Cure* is to be ordered according to the Causes and the Diseases; touching which elsewhere.

Chap. 2. *Of Asthma.*

Asthma is a frequent, thick, and short Respiration or fetching of the Breath, proceeding from the pertinacious either obstruction or Compression of the Lappets of the Lungs.

The SIGNS of the *beginning* hereof, are, the heavineſs of the Breast, difficult breathing in running or going up a steep place, hoarineſs, a Cough, and a windineſs in the Præcordia, &c. The Signs of one *present* are already expressed in the Definition. There is present now and then a Feaver, as also a certain ratling noise or Wheezing, in regard that somtimes the matter sticketh fast in the foldings of the Rough Artery, which when it is expelled by the breath, there is the atoresaid sound and noyse excited; and somtimes without them, in the smooth Arteries. The drawing in of the Breath is here more difficult than the exspiration or Putting it forth. For whenas in taking in the breath, neither the Lungs, by Reason of the store of matter, nor the Thorax, by Reason of the imbecillity of its motion, can easily be moved; Nature interposing, endeavoreth as it were by rest and quietneſs to cherish and repair the weakned and dejected powers; but in Exspiration or breathing forth the Organs and instruments of that work fal down and so give way of their own accord.

The CAUSE is the Obstruction and compression as wel of the Rough Arteries as of the Smooth, of which we have spoken above; and from what causes it proceedeth we shal declare in that which followeth.

The CURE hath respect unto the Causes; and it is somthing *Difficult*, if the sick persons be aged There is but *smal Hopes*, if the sick person be thereby rendered Gibbous, and caused to go stooping with the back bunching out; because that in these the Lungs growing, and the *Spina* not growing nor increasing, in the straightneſs of the Breast the heat is stifled and smothered; if it be with an acute Feaver, in regard that the Cause of the Asthma being dryed up by the Feaverish heat, is thereby rendered and made the more unfit and unable to eject and cast forth that which offendeth upon the ceasing of the Cough, the difficulty of breathing stil remaineth; if the strength be much weakened, because then they soon fal into the *Syncope* or swooning fits.

The *Diffecences* are taken, partly from Causes obstructing and compressing, and partly from the accessions, and other the like Causes.

I. One is from a *Viscid* or Clammy *Humor* stuffing up the Lappets; which may be *known* by this, that the breathing forth is Difficult, and with a sound, as it were, and a noise, together with a Wheezing Cough. It is Cured, 1. By opening the Basilick Vein, if nothing hinder. 2. By cutting and dividing the matter by those Medicaments that moderately cut and divide, and that have in them humidity, to moysten; but these ought to be often changed, lest that otherwise Nature should be too much accustomed

accuſtomed thereunto. For the purpoſe aforeſaid there is commended the Oyl of *Angelica*, the Syrup of *Nicotiana*, or Tobacco, and that Syrup of *Theodatus* in his Pantheon Hygiaſticon; the Decoction of *Foel*, of *Zedoary*, *Gum Ammoniack*, the *Flower of Brimſtone*, and Saffron; the Oyl of *Sugar* of *Grulingius*, and *Petræus* in his Noſology; the Secret of *Frytagius*, in his Aurora Medicorum; *Oxymel Scillitick* with the Syrup of Violets, &c. 3. By Evacuation, with the *Aſthmatick powder of Rulandus*. 4. By Exſiccation, with Guajacum, Saſſafras, &c. The Humor is divided into that that is *Collected* in the *Lungs*, (and the ſick perſon by degrees beginneth to breath with difficulty and much ado and this difficulty is continual) and into that which *floweth unto it* from *elſewhere*, and then it is not wholly continual; the Exacerbations thereof are manifeſt. And here all thoſe things that have in them a purging quality are to be ſhunned and avoided, becauſe they are not without danger.

II. One is *from* a ſerous and *Wheyiſh Humor*, waxing hot in the greater branches of the *Vena Cava*, and ruſhing altogether and violently through the right ventricle of the Heart into the Lungs, and preſſing down the Arterie; and this is moſt frequent. It proceedeth cheifly *from* the *Liver*; and hence it is that the Feet of the Aſthmatical perſon do ſwel by reaſon of the weakneſs of the ſaid Liver; the humors in the firſt place ruſhing unto the Lungs, by their falling to the Kidneys, excite and cauſe a difficulty & ſtoppage of the Urine, Ructures or ſour belchings, and windineſs in the *Præcordia* are accounted to be in the number, and among the ſigns thereof.

III. Another is from a *little Crude* or raw *Swelling*, that we term *Grando*, and ſmal ſtones and Gravel; touching which we have treated above, in the ſtreightneſs of the Lungs.

IV. One is *more light*, gentle, and moderate, with a ſnorting, Noiſe, and a violent Cough, the Diaphragm, and the Intercoſtal Muſcles, yea likewiſe the Muſcles of the Abdomen, affording the aſſiſtance herein. Another there is more *grievous*, (we cal it *Orthopnæa*) in the which the breathing is very little, thick, and exceeding ſwift, which is not performed but with the breaſt and Neck ſtraitly erected, the Superior Muſcles of the Breaſt and the ſhoulders likewiſe contributing their help and aſſiſtance.

V. One is *Not Periodical*, and that obſerveth not its Paroxyſms. Another is *Periodical*, when the Humor either of its own proper Nature extendeth it ſelf and ſeeketh for more ſpace and room, or otherwiſe is driven and chaſed up and down by External Cauſes, if it be there collected, or elſe at the certain and wonted time it floweth hither from ſome other place. Thoſe exacerbations are wont to be cheifly in the Winter, or in Autumn, becauſe the matter is Flegmatick; and in the *Night-time*, becauſe it is then moved according to the Motion of the Moon, and this uſually every fourth day. This may be greatly Remedied (other things not omitted or neglected) either with a Scruple of *Saffron in Malmſie*, and given hot, or with *Brumerus* his ſmal Potion, made of a dram of *Ammoniacum*, *Hyſſop water* four ounces, and *two ounces of Rheniſh Wine*. [Read more of this ſubject in the Guide to Phyſick and Chyrurgery, *Riverius* Practice of Phyſick, and his Obſervations; and the *London Diſpenſatory*. Al of the laſt Editions, Engliſhed by me.]

Chap. 3. *Of the Cough.*

THe Cough is a vehement, thick, and loud Efflation or Blowing forth of great ſtore of breath (together and at once) that was firſt attracted and drawn in by the Lungs, Cauſed by the ſwift Contraction of the Lungs and the Thorax, that ſo what ever is burthenſom and Grievous unto the Organs of breathing, may be expelled and ſhaken forth.

In a Symptom ſo evident, there need no SIGNS at al.

The CAUSE is, whatever may affect the Lungs, the *Rough Artery*, and that Membrane wherewith it is encompaſſed, and as it were ſwathed about within, whether this be ſomthing External, or elſe a Humor, or a Vapor, &c.

The CURE either reſpecteth the *Cauſe*, from whence it ariſeth; or the *Cough* it ſelf, if it be vehement; which is either mitigated by Lenifiers or Anodynes or elſe is wholly taken away by thoſe Medicaments that ſtupefie and *Dul* the ſenſe and *feeling*, as for inſtance, the Syrup of Poppy, Diacodium, Treacle freſh and new, &c.

The *Differences* of the Cough are Various.

I. One is from *External Cauſes*, as a Cold Air, the Vapors of Live things Rank, and muſty,

musty, as likewise such things as are Oyly and Fat; a vehement Scratching of the Ears, from whence there ariseth a very painful affect of the Nervous parts; which yet is the less violent, if it proceed not from something fallen into the *Trachæa* or the great rough Artery; and it is then also less dangerous. It is Cured, if the Cause be taken away; if it proceed from *Cold*, then it is Cured by the meer restraying and keeping in of the breath.

Another is from *Causes internal*, to wit. I. a *Humor*, which 1. Either is *viscous* and clammy; (and then there is nothing or very little spit forth) after Coughing, if it hath conjoyned with it a cold temper and constitution, it is then the stronger and the more violent. It is cured (Universals first premized) by those Medicaments that cut and expectorate. Among purging Remedies, *dilutum Agarici* (as Practitioners term it) with a little *oxymel Scillitick*, is of singular use and benefit. Among those things that cut and expectorate, the *Bechicall* Aquavitæ of Joel, the *Liquor* of *Sugar* of Hartman, the *Elixir Proprietatis*, from six drops, to twelve. 2. Or else such as is *thin*; and then there is nothing spit forth, because that in the very spitting of it forth, it is so dispersed and divided by the breath, that it falleth back upon the Lungs; it hath for the most part a hot temperament and constitution, and likewise a Catarrh Joyned with it, and attending it. The Matter putrifying inwardly, exciteth, either a Putrid fever, or an Hectick fever, or an Ulcer. It is cured (after that General and Universal remedies have been first made use of) by those things that increas-sate or thicken, and lenify; such as are, the syrup of Jujubes; the syrup of Poppy *rhæas*, diatragacanth; fridgid, &c. 3. Or else it is contained *in the lunges*, (and then a due regard ought to be had unto the distemper) or else it floweth thereunto from *some other parts* as the *Brain* in a Catarrh, and here there wil evermore be present the signs of a Catarrh; the Cough, in aged persons is more vehement and of longer continuance, because that it is not maturated and ripened, and therefore the more dangerous; if it be frequent and long lasting it bringeth at length to the spitting of blood: or else from the *inferior parts*, as in the dropsy, the inflamation of the spleen, the liver, and the stomach, &c. II. From a *Vapor* which either obstructeth the Lungs, or else hurteth the membrane; and then for the most part, the vapor is sent thereunto from other parts, and diseases; the Cough is dry, and sometimes a little irritating; and it usually happeneth when the patient either speaketh, or gapeth much; In the cure we are to deal with those things that remove the cause sending the vapors; and likewise to endeavor the driving back, and the Revulsion of the vapor; &c. It happneth either in *Feavers*, (which shew that the Paroxysm is now nigh at hand, and forewarneth that impostumations are like soon to follow; and if it remain after the termination and ceasing of the Fever, it then threatneth the danger of a Recidivation or Relapse;) or else in the wringing pain of the Gutts by worms (we cal this Affect *Bermina*) which either by impulse of putrid vapors unto the Lungs, or else by the twinging and gnawing of the Membrane of the *Oesophagus*, which draweth the Membrane encompassing the rough artery into a consent and agreement with it; and it discovereth it self by the signs and tokens of Worms. III. From *Pus* or Corrupt matter which chanceth in the Phthisis, Peripneumony, Pelurisy, the wound and inflamation of the diaphragm &c. IV. From a little swelling, or (as we terme it) *Tuberculum* that is *Crude* and raw, from *Grando*, &c.

II. One is *dry*, in which there is nothing cast forth by Coughing; either by the fault or the faculty, or the Matter. Another is *Humid* or Moyst in which something is ejected and cast forth.

Both these are either *Recent* and newly begun (this properly termed Cerchnos, in which there is only a light and gentle propension to Coughing continually afflicting the sick person, not much unlike unto the Nauseousness of the stomach that goeth before Vomiting; and this is sometime removed and ceased by the alone holding of in the breath for a while) or else it is *inveterate* and old, bringing along with it more grievous symptoms.

III. One is *Periodical*, which twice or thrice in the year, by certain intervals, afflicteth the Patient; and most usually procedeth from a distillation suddenly and violently rushing in.

Another, which either *continually*, or at least with very *little intermission*, troubleth and even wearyeth the Party; which hath for its Cause either a vicious affection of the lungs, some old obstruction, or in a word, some other fixed and rooted internal Cause.

CHAP.

Chap. IV. *Of Hæmoptysis*, or spitting of Blood.

Hæmoptysis is the Rejection and casting forth of blood (together with a Cough) from out of those parts that are destined and ordained for Respiration and breathing, happening unto them without any inflamation of the aforesaid parts.

There is no need of *Signs*, in regard that the Affect is apparent unto the sight.

The *Cause* is, whatsoever dissolveth the unity of the veins, whether this happen by means of *Anastomosis*, or a *Dierisis*, and a *Diapedesis*.

The *Cure* consisteth in stanching the blood, and stopping the bleeding; and it especially hath respect unto the Causes. *Observe* in it, that there ought to be a revulsion made by opening a Vein in the Arm; or otherwise, in the Ankle, if there be present a suppression of the Monthly Courses; and likewise that the ill quality of the blood is to be tempered and qualifyed; that the *purgers* are not to be *hot*, neither strong and forcible, that the inflamation in that part from whence the blood issueth forth is to be speedily averted and turned away that the clods of blood are to be dissolved, and this to be effected not with vinegar alone; that before ever we make use of remedyes that avert and turn aside, we ought to forbear Astringents or those things that stay and stop the blood; that Cold *topicks* must be carefully avoyded. Among those Remedies that stanch and stop, there is especially commended *Centinody*, boyled in broth, and applied unto the parts; the *powder* of *Scaliger*; of which see more in *Petreus* his Nosology.

The *differences* are taken from the Causes, and the parts.

I. One is from the *Anastomosis* of the veins; Another from the *Diæresis*; and a third from the *diapedesis* of the veins; touching al which see further in the Chapter of the Hemorrhage, or bleeding of the Nostrils.

II. One is from the *Brain* transmitting and *sending* it, which *is known* by this, that the blood is little or nothing frothy, rejected and cast forth sometimes by retching, and with a cough; that there is a heavy pain in the Head; that the veins in the forehead are elated and strut out; it *is known* also by the frequent retching and stretching, and the sense of heat, and the tast, as it were, of blood. Gargarismes are here of singular use.

Another from the *Jaws* which is *known* by retching, the solution of Continuity, which is very evident and conspicuous when the tongue is pressed down; which said solution discovereth even the Gums and the parts of the mouth, with a simple exspuition, the Party spitting forth nothing but what is simple and unmixed. *It is taken away* by a Gargarism of the *rinds* of the *roots* of the *wild sloe trees*, *sumach &c.*

Another from the *Throat*, in which there is cast forth blood, with a freqent, smal, and easy Cough, together with a pain of the Larinx.

Another from the *Rough Artery*, in which there issueth forth a smal quantity of blood, that is red and hot; sometimes with smal strings cast forth together with a gentle cough, and some kind of pain in the part affected.

Another from the *Thorax*, or Breast; in which the blood is little or nothing frothy, but blackish, and clotty, sometimes stinking, and mingled with purulent matter; and it is ejected with a Coughing and pain. *It is cured*, 1. By opening the Hepatick vein of the right side, and the blood ought to be drawn forth by degrees, and often repetitions. 2. By *Evacuation* with Cholagogues or such Medicaments as in purging extract and draw forth Choler. 3. By *incrassation*; where *Trochisques* of *Crabs Claws*, *de spodio*, and *de terra sigilata*, or the sealed earth of *Lemnos*, &c. are much approved of.

Another from the *Lungs*, in which the blood is continually frothy, colored, hot, compact, accompanied with a Cough, and void of pain; and sometimes there is together with it rejected a smal quantity and portion of the said blood corrupted and putrefyed.

Another from the *inferior parts*, in which a little blood is cast up by vomit, together with a pain, and a bloody ejection, &c.

[Read more of this subject in the Guide to Physick and Chyrurgery, *Riverius* Practice of Physick, and his Observations; and the *London Dispensatory*. Al of the last Editions, Englished by me.]

Title, VII. *Of the Affects of the Heart.*

Chap. 1. *Of the Palpitation of the Heart.*

THe principal affects of the Heart are, a *Distemper*, a *Palpitation*, and a *Fainting* or Swooning.

Touching the *Distemper*, (especially that which is hot) we have spoken already in the second Book. Concerning that which is moist, Cold, and dry, there is nothing singular that offereth it self to consideration, but what we may as wel make mention of in the other *Species* and kinds thereof: and therefore we intend to treat only of those two sorts.

The Palpitation of the Heart is an inordinate, and (by its dilatation and contraction or setling it self) composed motion of the same, whilest it either expelleth that which is burthensome unto it, or else attracteth that that is requisite and profitable unto it, or else restoreth that that is Deficient and wanting.

It differeth from *Trumor* (or the Trembling of the Heart) in that this latter shifteth its place, but the former seateth and fixeth it self in one place alone, whether it be greater or less; this of the Moving faculty; that of the instruments; and it may happen unto those parts that are otherwise immovable.

The SIGNS are evident and manifest enough unto the very senses, to wit, the sight; the touch, and the Hearing. The Jugular Arteries are especially those that leap and Beat; and their pulse is unequal and inordinate.

The CAUSE is either any thing irritating the moving faculty, or else a necessity of refrigeration and cooling, by Reason of the hot distemper; or a Defect and want of the spirits, touching al which specially and particularly in the Differences,

The CURE is exceeding difficult, for the Disease is extreamly perillous; it being very acute in each particular Paroxysm; but of long continuance, in regard of its intermitting, and frequent returns. If it proceed from the Coldness of the Heart, if it continue long, and from yeer to yeer, and make many Recidivations, it then for the most part is terminated, and by a Syncope concludeth in Death. *It Respecteth*, I. The *Paroxysm*; in this Case the Fomentation of *Balm* and *Borrage*, the *Water* of the *hearts* of *Animals* (known in the shops by the Name of Aqua *Excordibus Animalium*) of *Heurnius*, and the Juyce of *Mother wort*, or (as we cal it) *succus Cardiacæ*, &c. Have their due and proper place. II. It respecteth the Causes; touching which we wil treat further in the Differences.

The *Differences* are taken from the Causes.

I. One is from a *Vapor*, or a *Windineß*, exciting and irritating the Expulsive Faculty of the Heart, which *is known* by this, that its approach and surprisal is sudden and unexpected; that it is excited by every light and gentle motion of the Body; and there often a Trembling Seizeth upon the Knees, and a darkness and dimness upon the Eyes, &c. This, 1. Is either *Collected* there in that same place, being Resolved of a matter Old and thick and fixed in that same place, oftentimes with a Cold distemper, but more seldom with a hot; which if it be unequal, it then raiseth up many Vapors; and it is to be removed and quite taken away by opening the Vein either of the left or the right Arm, according as the Pulse and beating is in this or that more restless and unquiet; and especially if there be present, a Plethory, or over fulness of pure and good blood; by the application of Cupping-Glasses to the Thighs; by the removal of the Cause that is constantly and continually giving in supplies of matter; and moving it up and down, and from place to place, and likewise by the discussion of the said matter. And here there availeth much the *Oyl of Citrons* with some Conserve, the right and *true Rhapontic* two scruples thereof given in Wine, the *Confection* of *Alchermes*, the *Treacle Water* with Camphire of *Crollius*. Or, 2. it is sent *from* the *Inferior Parts*, the Stomach, the Womb, the Hypocondria, &c. And then regard must be had unto those parts. 3. Or else it is *Malignant* and *Poysonous*, and then there is present an extraordinary vehemency of the Motion, which passeth into an inequality of al sorts, as also into a fainting of the Heart, and a Syncope or Swooning fits. In this case there is commended the *Cordial* of *Crollius* made of Gold, the *Emulsion* of *Margarites* with the water of Borrage and Cynnamon; the *Experiment* of *Thanckius* of red Cora.

prepared

prepared, and Margarites dissolved in the water of lavender, by the insperſion of the oyl of sulphur, or vitriol; the *water* of *Cinnamon* with the spirit of Juniper, &c. *Epithems* of *Alexipharmicks*. 4. Or else it is *not poysonous*; unto which those things above mentioned may fitly be applied.

II. One is *from a humor, which is known* by this, that its invasion is not altogether so sudden and unexpected, and that it continueth longer. And this is. I. Either watersh, having its residence in the *Pericardium*; which is not known but with much difficulty, albeit the malady be continual, and that the sick persons complain of the suffocation of the Heart. It is taken away by discussives, as wel such as are internal, as Treacle, *Confection of alchermes*, the *Species* of *diambra*; as those that are External, namely, *hot Bread* besprinkled with a cordial water, and applied to the region of the heart. Neither vesicatories, nor venesection are here to be made use of. Or else it is sent *from some other parts*, and by its weight either burtheneth too much the veins, Arteries, and the ventricles of the heart; so that it is thereby deprived of the freedum of its motion (as it hapeneth in wounds) great fear and terror, &c. or else by its quallity it infesteth the same; which is especially wont to be done by Choler a dust, and terrefied by excessive heat; and then there wil be need of evacuations and revulsions. For the Cauteryes, if we make use of any, there are *no cantharides* to be therewithal mingled, or put thereinto. *Treacle* outwardly applied (if the matter be cold) is here commended. 2. Or else it is *not malignant*; and of this what hath already been spoken ought to be understood: or else it is *Malignant and poysonous*, and then there is great variety in the Pulse, which chanceth especially in regard of the greatness and smalness thereof, &c.

III. One is *from a Tumor*, which if it be *hot* the inflamation in the Body wil be so much the greater, and the breathing wil be difficult: if the swelling be *hard*, and in the *Pericardium*, the motion is then continnual, and the sick person wasteth and weareth away by degrees, and without any manifest Cause. The *Cure* is to be proceeded in according to that of a Tumor.

IV. From *Worms*, which are discovered by the Convulsion: for the whole and entire cure hereof, see in *Hartman*. The *Bezoar stone* is here of excellent use.

V. From the *defect* of *Spirits*, which is known by the foregoing of dissipating Causes. It is *Cured* by those things that Cheer and Comfort, as odoriferous wine, &c.

VI. From a hot Distemper; touching which the second Book is to be Consulted.

Chap. 2. *Of Fainting or Swouning.*

FAinting or Swooning is a sudden and Precipitate fayling of al the Spirits, and especially of the vital powers and strength, with a pulse much weakened, and almost totally abolished, as likewise with a cold sweat, arising from an extraordinary great, weakness of the Heart, through the fault and defect of the vital spirits; of which those that remain retire also from the External parts of the Body unto the Centre, to wit, the Heart.

According to the divertsity of the degrees of this sad affect, so are the names thereof various and different. *Ecclusis* is a smal and light fainting; *Lepothimia* and *Leipopsychia* is that which is somwhat more greivious; and *Syncope* is the most sad and greivious of them al; which last, if it proceed so far, that the pulse or beating is abolished in the whole Body, it is then termed *Asphyxia*; the reason whereof shal be declared in its definition.

The *Signs* (and that first of the affect not yet present, but very *neer approaching*) are, especially in persons unaccustomed thereto, an Anxiety that neither was nor indeed could be foreseen, a *vertigo* or swimming in the head, a representation, as it were, of strange and various Colors, an often reiterated change and alteration of the Pulse. The Signs of the Affect *present*, are, a suden fal and failing of al the Powers of the Body, a Pulse most weak and obscure; and so it is distinguished from the *Apoplexy*, & the strangling of the womb, the Chilness and Coldness of the whole Body, but more especially of the extream parts, a cold sweat, and therefore termed *syncoptick*, breaking forth, and chiefly in the temples, neck and Thorax; which if it be with an abolition of the Pulse it is then to be accounted a sign Pathognomick.

The CAUSE is a sudden fayling of the vital spirits, whithout which neither the heart, nor indeed any other part of the body can perform its actions; but as touching this we shal speak more fully in the differences.

There is *some hope* of a *Cure*, if it be only from the single or simple distemper of the heart; if it proceed from evident and apparent Causes; and if it be by Consent: There is no hope, if the patient fal often into these fainting fits, and that without any manifest cause; if it befal a weak body; if the sick person be not raised out of these fits after the sprinkeling of Rose water upon his face, and the drinking of wine; nor yet even after *sneezing wort* hath been administred; if the heart primaryly lie and labor under this affect; and lastly, if it affect those that are Feverish and (by reason of the great store of humors) with an inflamation of the stomach and the Liver. The Cure hath respect. 1. Unto the paroxysme; in the which the Spirits are to be refreshed and cheered with the vinegar of the *flowers of tunica* (a kind of Gilly-flowers) the vinegar of *Rue*, and of the *Elder Tree*; the balsam of *white Ambor*; and likewise by putting to the nostrils wine, *Rose water*, *Cinnamon water*; and carbuncle water, &c. When the disease is hot, then cooling Medicaments; but if the Affect be Cold, then those Remedies that heat and warm, are to be administred; and unto women those things that afford the most strong and stinking savour. Unto the Region of the Heart Epithems, and inunctions of *treacle*, *Mithridate*, and the oyl of *Citron*, are to be applied. *Wine that* is old and *odoriferous*, is here most efficacious. II. It respecteth the *intermission*; touching which more shal be sayd, now we are come in the next place to speak of the differences.

The *Differences* are taken from those Causes that produce a defect of the Spirits.

I. One is, that *Spirits are not generated*, either by reason of a defect of Matter, to wit, the blood overmuch evacuated, and the Air corrupted; or else by reason of some defalt in the faculty, as wel in regard of the more noted and considerable diseases of the Heart (whether they be from its distemper, or whether they be instrumental) as in regard of the Affects of the Brain and the Liver, yea likewise of the stomach and the womb; and of al these there ought to be a special and due regard had in the cure.

II. Another is from the *Dissipation* of those *spirits that are generated* and bred; which is caused. 1. by those *insensible evacuations*, that are either habitual, or else happen from the over great rarity and thinness of the skin: (and in this case we must have recourse unto perfumes and sweet smelling medicaments, and to those kind of meats that afford a good and wholsom Juyce, the skin is to be confused and made thicker with the oyl of the mirtle tree, and with the oyl of Mastick) or else it is from the thinness of those things that are to be retained; and therefore here those meats that are not over fluid, and easily dissipated have their place, as being most fit and proper. 2. By *Evacuations* that are *sensible*, as wel of the blood, as of other humors: (where *Note*, that these Evacuations are to be stopped; that the body ought not to be besprinkled with those things that are cold; that in a large and abundant sweat, only such things as close and bind the skin are to have any place or use) 3. By diseases, as overmuch want of rest and sleep; (of which enough before) a vehement pain, the gnawing or pain of the stomach, the Colick pain, the Nephritick, or pain of the stone in the kidneyes or blader, the pain of the Teeth, &c. a sudden breaking of an impostume; in which there may a restauration be made by restorative meats sweet smels, and rest. 4. By such things as are *evedent* and apparent, as namely, extream hunger, the immoderate use of venus, too much and over violent exercise, &c.

III. Another from the *alteration and corruption of the spirits*, (which is caused by a malignant matter, whether external or internal, as for instance, the rottenness of humors) poyson drunk and taken down, the bitting of venemous Creatures, and then the Cure is to be sought for in its peculiar and proper place.

IV. Another from the *suffocation of the spirits*; which is caused, 1. By *overmuch blood*; and then there are present and appear signs of a plethory; and in this case the opening of the Basilick vein helpeth much. 2. A *humor* that is *Crude* and *thick*, very much abounding about the heart, and the veins and arteries thereof, the capsula (or purse of the heart) and the neer neighboring members; and this is either there cellected, or else transmitted either from the head and other parts; and then the habit of the body is Hydropical, neither can the patient undergoe and bear either the opening of a vein, or purgation: Frictions or rubbings downwards, anoyntings with oyls that open and loosen, the use of *Oximel* with the decoction of other things that cut and divide, and fasting, (unless the pulse be suddenly changed and discover an extraordinary weakness) al these help and conduce much to a Recovery. 3. By *fuligenous* vapours, gathered together in great abundance

about

about the Heart and the Members adjacent, by which the respiration or breathing is hurt; these are sooneſt and beſt taken away by discussives. 4. By a *Sudden Terror* and *Fear*; for which Evacuation is moſt convenient, leſt that from the afflux of Blood some obstruction in the Vessels, or else an Inflamation should be excited. For what remaineth, see further to the Treatises, of the Practical Physitians.

Title, VIII. *Of the Affects of the Paps, or breasts in Women.*

Chap. 1. *Of the Diseases of the Papps.*

Article, I. *Of the Tumors or Swellings of the Paps.*

THe Affects of the Paps or Dugs are either Diseases, or Symptoms: unto the former of these there belong, *Tumors*, the Cancer, and the *Magnitude*.

The *Tumors* of the Paps are four.

I. An *Inflamation*, which is a hard swelling. *It is known* by the redneſs, the pain, the pulse or beating, and the heat thereof; by which it differeth from that we cal the Clotting or Curdling of the Milk, and the overgreat abundance thereof. *It ariseth* from the great store of Blood that is attracted, transmitted, or suppreſſed. *It is Cured*, 1. By a Diet that is thin and spare, cooling and moistening. 2. By Diversion, which is performed by letting blood in the Ankle, if the Causes be suppreſſed. 3. By *Evacuation*, by opening the internal Vein of the same side, and so letting out the Blood; as also by a gentle Purgation. 4. By the Application of Topical Remedys, in the Inflamation of such as thereunto accustomed. And here we are *to take Notice*, that the Repellers ought to be temperate, leſt that the Heart be overmuch cooled; that in the *Augmentation* thereof there is commended beer and butter wel warmed, and so applied; that the extream *Hardneſs* may moſt properly and succesfully be prevented and removed by the Medicament that is formed and made of the *Marrow of a Calves Thigh*, two ounces thereof, of *Oesipus* or the moisture of greasie sheeps Wool, one ounce; of *Saffron four scruples*; of *Cummin* wel *bruised* two scruples; that when it is *Suppurated*, (in regard that the Breasts or Paps are Spungy and ful of hollow Caveties) it is moſt commonly to be opened in divers places thereof; that the *Pap* affected is very rarely cured and healed, unleſs the Milk of the other that is sound be dryed up, in regard that the blood equally floweth unto both; and lastly, that the *Pain* is to be moderated and mitigated; if it be in Summer, moſt fitly with the Leaves of *Henbane*; if it be in the Winter, then with the *Roots* of the said Henbane, roasted under the Embers, and then wel beaten together with Hogs Greaſe.

II. *Oedema*, which is somtimes diffused and spread abroad throughout the whol Paps or Breasts, so that they wholly and equally swel. *It is known* by this, that it is soft, and that by intervals, and at certain times (to wit, in the time that the Courses flow) the swelling and the pain is exasperated; but yet notwithstanding, that there is evermore some of the swelling remayning. The *Original* and the *Cure* hereof are to be sought for out of that which is spoken in the general touching these Tumors. And here it is only *to be Observed*, 1. *That* in the retention of the Courses, those meats that are Toſted and Roasted are not so fit and convenient. 2. *That* the stronger sort of Maturatives are to be made choice of in regard that here the matter is tenacious and very loth to yield. 3. *That* a due regard is likewise to be had of the Stomach, that is the Receptacle of the Flegm.

III. The *Scirrhus* of the Paps is either Exquisite, or *not Exquisite*, 1. The *Exquisite* is various. I. One is that which is but *newly* begun, or but *now beginning*, which upon the touching thereof is a little painful; and in this regard it is distinguiſhed from a Cancer that is likewise but now beginning; and it is very hardly Cured. Another Old and *Inveterate*, which is hard, without pain, incurable by Medicaments, especially if it resemble the color of Capers; or if haires grow therein; it is somtimes Cured by Manual operation. II. Another is *by the Congeſtion* or heaping up of a Humor that is in it self thick, in the Curing of which we are not to use Vinegar, either in the beginning, or long, at any time, leſt that either the residue thereof should be hardened and become like unto a stone; or else that the substance of the part being overdryed should waſt and consume away: neither ought we to attempt any thing by Manual operation, if the whol

whol Breasts or Paps Wax hard, and that the swelling so add hereunto the Thorax or Chest, that without extream peril it may not be thence removed. Another *by Resolution*, in which the thinner part is dryed up by preposterous Medicaments; and which *Galen* Cured by an Evaporation of the sharpest and soureſt Vinegar, poured forth upon the *Pyrites* stone, (we cal it the fire stone) Red hot, but this was after the use of liquid and moystening Medicaments. In the *Curing* of them al, we must be sure that we have a special regard unto the Spleen, and the suppressed Courses, and that Emollients and Resolvers succeed one the other, and be interchangably applied. 2. The Scirrhus *not Exquisite is known* by this, that the swelling is bigger than in a Cancer, of the color of Ashes, with an hardness, and the Veins thereof somwhat black and blewish in the outward parts; and that it somtimes vexeth the Party, especially upon the neer approching of the Menstrua or Courses. *It ariseth* from Black Choler mingled together with Melancholly, especially in such as are barren, or such which soon ceased their Child-bearing, or else, lastly, those that have altogether a suppression of their Termes, or monthly Courses. In the Curing hereof, among the Repellers without astriction, there is commended the Unguent *of Frogs*; of which see further in *Castrensis* his first Book of the Diseases of Women, Chapter, 21. See likewise touching the Manual Operation in the Same Author.

IV. A *Windy Tumor*, which *is known* by this, that the pain is very acute, especially in the left breast, with an Excruciating and torture of the Arm, the whol side, the Ribs, and the Shoulder blades. *It ariseth* from an Exhalation that is thick and drawn up from the Menstrua, or the Seed suppressed, or else from some other Excrements, and so extending the said Paps. In the *Cure* hereof, take notice, that a Linnen Cloath soaked in *Soapsuds*; or else wet in Water, and then dryed, is commended for dissipation, and when there is occasion to disperse and Scatter; and that the Pain is wel mitigated with bread taken hot out of the Oven, and then moystened with the *Oyl of Nard*, the shops cal it *Oleum Nardinum*, and of *Rue*.

Article, II. *Of the Cancer, and Greatness of the Paps.*

I. The signs of the *Cancer* in the Breasts, as also the Causes, and the Cure, may be known, and sufficiently understood by what hath been already said in the Second Book touching a Cancer. Let it suffice here only to add, I. That the Cancer that *is not Exulcerated* may be rendered and made more milde and gentle, if the Courses being recalled return to their pristine state and condition, either by the Course and Vigor of Nature, or else by the assistance of Art, and the help of Medicaments; or else if the Body be preserved free from a Cacochymy, either by a good order of Diet, or else by Medicaments. There may likewise be applied unto it that Unguent that it compounded of *Lithargyrum*, two ounces thereof, in a Marble Mortar drawn about with a Leaden Pestle, and incorporated with *Rose-water* and the *Oyl of Roses*, of each three ounces. II. For the Cure of the Cancer *Exulcerated*, see in *Hartman*, who writeth that the said *Cancer* may be perfectly Cured with *Aqua Fuliginis* that hath in it a clensing Faculty, and with the *Oyl of Arsenick fixed*, and wel tempered in Plantane Water.

II. The *Magnitude* of *the Paps* (unseemly as it is) is expoſed unto the sight. *It ariseth* from the often handling and stroaking of them, and especially from the great abundance of Flatulency and windiness, the Retention of the Courses, &c. The Cure hereof ought therefore to be Endeavored, becaus that by how much the greater and bigger they grow, but so much the more easily they may be affected with the Cancer. *It is performed*, 1. By *Meats* that are Astringent, but little or not at all flatulent or Windy. 2. *By Driving back* the blood, or other the Humors flowing unto them; and here the Juyce of Hemlock, and the Partridg Eggs, anoynted upon the place, are much approved of. 3. By the *Discussion* of that that is already gotten unto the part affected; for which purpose that Unguent that is compounded of the Dirt or Clay that is *to be found in Barbers Mils, two ounces* thereof, the *Oyl* of *Myrtle* one ounce, and Vinegar half an ounce, is much commended. 4. By the *Compression* of them by Artificial ones of Lead anoynted on the inside with the Oyl of the *Seed* of *Henbane*, &c.

Chap.

Chap. 2. *Of the Symptomes of the Breasts.*

Article, I. *Of the want of Milk, too great abundance thereof, and its Coagulation or Curdling.*

THe Symptomes of the Breasts are, the *Defect*, *Redundence*, and *Coagulation of the Milk*.

I. The *Defect of Milk* (according to the Nature of the Causes) is twofold.

For one is from a *Fault* in the *Blood*, which faileth by reason of Diseases that over dry the body; from a distemper in the Liver, from much fasting and spareness of Diet; and lastly, from extraordinary Evacuations; of al which there must be care taken in the Cure. Now to generate and breed Milk, these things following are experimentally found to be good, Namely *Crystal* prepared, the leaves, Roots, and Seed, of *Fennel*, while they are fresh and green; the pouder of *Earthworms* prepared, and taken in Wine, the *Electuary* of *Zacuthus*, in the Ninth Book of his Pract. Hist. and last Chapter.

Another is from somthing *amiss* in the *Lactificall* or Milk breeding *Faculty*, when it is so weak, that it can neither attract the blood, nor contract it, either by reason of External refrigerating Causes, and such as are likewise Astringent; or else by reason of other Diseases; unto which we ought to have due respect in the Cure.

II. The *Redundance* or over great store of Milk proceedeth from the abundance of blood, and a strong Lactifical Faculty. In the *Cure*, the Luxury and prodigality of Nature in the breeding of Milk is to be restrained; and the Milk that exceedeth and is over and above, ought to be dissipated and dryed up. For this purpose venesection in the first place, is approved of; and then driving back by Medicaments, which ought to be put upon the Paps, towards the Arms; And also those Medicaments that wast away and lessen the Milk, such as that they cal *Muria* (a kind of brinish Liquor, or Pickle) *with the pouder of Cummin*, and *Hemlock* Boyled in Chervil Water and Vinegar, &c.

III. The *Coagulation* or Curdling of the Milk is then Caused, when the more thin and subtile parts do by little & little exhale, & the thicker remain behind; from whence the Glandules or Kernels wax hard, and swellings, yea and also impostumes arise. In this Case the Infant ought not to be suckled out of the Breasts affected; and yet notwithstanding the Milk is to be suckt out, lest that which is bred anew should be Curdled by that Milk that is already become (as it were) Cheese, and that part of the Curdled Milk that begins to be dissolved should putrefie. For the Dissolving hereof, excellent good is that *broth* that is made of the stalks of the Herbs following, (together with an Ablution or washing of the Paps with Water, Wine, and Vinegar mingled together;) a Fomentation of the Decoction of *Marsh-Mallows*, *Fenugreek*, and *Melilote*, &c. A Liniment laid thereupon of the *Oyl* of *Roses*, *Sweet Almonds*, the *Juyce* of *Smallage* and *Parsly*, and *Vinegar*, *in which there hath been first dissolved* the *Curd* or *Runnet* of a *Hare*. The *Water* of *Hemlock* is thought to be good for both the foresaid Purposes.

And so much of the Diseases of the Chest or middle Region.

THE

THE TENTH BOOK OF THE IDEA OF PRACTICAL PHYSICK.

Concerning the Diseases of the lower Belly.

Title, I. *Of the Affects of the Gullet.*

Chap. 1. *Of the Diseases of the Gullet.*

THE Diseases of the lower venter comprehend under them the affects of the *Gullet*, *stomach*, *Guts*, *Anus*, *Mesentery*, *Liver*, *Spleen*, *Kidneys*, *Bladder*, *Genital Parts* in Men and Women, *the Navel*, and *Belly*.

The Diseases of the Gullet are, *Distemper*, *Tumor*, *Straitness*, *Wounds and Ulcers*.

Article, I. *Of the Distemper and Tumor of the Gullet.*

I. The Distemper of the Gullet *is a recession of it from its Native to a preternatural Temper*: its *known*, by the swallowing being hurt. 'Tis *divided* into *a hot one*, which happens from without, from fumes, pouders, &c. *from within*; from Vapors in burning Feavers, a hot and dry Distemper of the Womb; and then there is perceived a Redness and Roughness on the Tongue, with thirst, which is cured by cooling means & somwhat clensing. 2. into *a cold one*, which either proceeds from too cold drink, or otherwise, and is taken away by things that heat. 3. Into a moist one, which issues from the Defluxions of catarrhes, Salivation, &c. and Causeth a Relaxation of the Gullet, so that the lower part of it, and the upper mouth of the Stomach lie open. 4. Into *a dry one*, which ariseth from dry things and Causeth Roughness, and is Cured by suppings of Chicken Broth, or fresh butter.

II. *A Tumor of the Gullet, is its excess in its Magnitude.* 'Tis *known* by the pain in swallowing, most of al in the hinder part and back; by the stoppage in swallowing, so that

if a great bit be to be swallowed, sometimes the drink runs through the Nose; it proceeds from the same Causes, from which we said Tumors in general did arise. 'Tis often hard to cure, because it endangers Suffocation, but after the same manner as other tumors, viz. In the beginning by repelling means, in the Augment by external and internal resolvers, in the state by discussives; let vomits be avoided for fear of suffocation, unless when tis come to suppuration that the Tumor ought to be broke. 'Tis divided. I. Into *a hot one*, with which is joyned a Feaver, great thirst, pain, in the Cure of which bleeding takes place: and into *a cold one*, in which the pain is less, and in the Cure of which the repellers ought to be gentle, the resolvers and discussives stronger. II. *Into that which possesses the upper part of the Gullet*, and then meat cannot go down, and into that *which infects the lower part*, and then the Meat after it hath descended a little way stops there.

Article, II. *Of the Straitness, wounds, and Ulcers of the Gullet.*

I. The *Straitness* of the Gullet *is when its Passage is Contracted*: 'tis *known* by this, that liquids are easier swallowed than solid things. 'Tis *divided* according to its Causes, for one is from *external Causes*, as from astringent medicines, or some things swallowed; and then the business is known from the standers by, or the Patient himself: it must be cast up by vomiting or Coughing; or furthered by moistning and Emollient means applied outwardly and inwardly; or be thrust down with a Spunge Dipt in Oyl of sweet Almonds, or taken out with that excellent Instrument of *Fabricius Hildanus*. Another Cause is from *a Tumor*, *Worms* ascending out of the Stomach and Guts; from *Scorbutical*, and *Hypochondriacal Vapors* distending the Gullet, and compressing the rough Artery; from the Luxation of the Vertebræ of the Neck and back, which may be seen in their proper place. *Another is from thick Flegm*, kurdled milke, &c. Sticking in it, where Oxymel of squils and vomits takes place.

II. The *Wounds of the Gullet* in respect of their Causes are twofold, for either they are Caused by a weapon, and then the situation of the wound shows it, if vomiting happen, somwhat is cast forth through it, and tis hardly Cured: *Or from some sinal bones swallowed*, and then tis easily manifest. Medicines that are grateful to the Stomach ought to be administred.

III. An *Ulcer* of the Gullet is *known* by the pain, when some sharp, sour, or Salt thing is swallowed though in little quantity, by its biting, and by the casting up of matter. 'Tis hard to be Cured because the parts will scarce grow together in a Membranous body. It hath its *Differences* from the *Causes*, for one is from external corroding things, as *Aqua Fortis*, *mercury Sublimate*; and then we must work with Lenient Vomits, and such as are clammy, as the Mucilage of quince Seeds, Fat broths; *Another* is from a wound, *Tumors, impostbums*, *another* from the casting up of sharp Humors, &c.

Chap. I. *Of the Symptomes of the Gullet.*

AMongst the *Symptomes of the Gullet*, the Principal one is the *hurt of swallowing*, which is twofold: for *one is* by Reason of the resolution of the Gullet, the faculty being hurt, by Reason of the Resolution of the Nerves of the sixth or seventh Conjugation; its *known* by this, that solid things are easier swallowed than liquids, as being thrust down with less labor, for these require a greater force, to make them yeeld to the impulsive Body. It ariseth either from a Defluxion, and then there is felt a heaviness in the Head, a distension of the Neck, and the Rheum it self; or from some other Disease, tis dangerous, and ought to be cured by Medicines good against Pallies: the *Second* is by Reason of Convulsions, which ariseth also from a wound, and tis most dangerous in old people. There is *another* from the affects of the part, of which we have treated formerly.

Title, II. *Of the affects of the Stomach.*

Chap. I. *Of the Diseases of the Stomach.*

THe *Affects of the Stomach* are either *diseases*, or *Symptoms*; *to those belong distempers, Tumors, wounds and Ulcers, the other see hereafter.*

Article,

Article, I. *Of the Distemper of the Stomach in general.*

The Distemper of the Stomach is a preternatural constitution of its similar Parts in the first qualities.

The SIGNS of that are the *hurt* appetite and concoction, a change in the Excrements, a heavines in the Stomach, and waving of it, and distillations from the Head which most commonly happen.

The CAUSE is whatsoever can Internally or Externally alter it. The CURE is performed, I. *By the alteration of the distemper by contraries*, then the Medicines ought to be grateful to the Stomach, rather solid than liquid, rather meats that are Medicinal than exact Medecines, mixt with astringent things that the Stomach be not Relaxed, not sharp, Salt, corroding, lest they offend the mouth of the Stomach: if the Medicines be external, they must be applied to the sword-like Cartilage towards the Navel, and upon the back to the twelfth and thirteenth Vertebræ. II. *By taking away the Causes both External and Internal.* III. By *Strengthening the Stomach*, where appropriate Medicines take place, as the Magistral of red Coral, the inward Coat of a Hens maw, &c.

'Tis *divided* into a distemper without or with matter, of which in the following Articles.

Article, II. *Of the Distemper of the Stomach without matter.*

A Distemper of the Stomach without matter, *is a preternatural dispostion of the similar Parts of the Stomach in its qualities, produced by external and Internal Causes without the presence of any Humor.*

Its SIGNS and *Causes* shal be explained in the *differences*, the *Cure* relies only on alteration, and removing the Causes.

'Tis *divided* according to the qualities.

I. *One is Hot*, which is known from the want of appetite to meat, indorous Belchings, clamminess of Spittle, dryness of the jaws and Tongue; it ariseth externally from the six non Natural things encreasing its heat; internally from internal Diseases, burning Feavers, Inflamation of the Liver, Spleen, &c. 'Tis *Cured*, 1. With cooling things, but lightly and not too long applied. 2. With cooling Diet where Barley Water takes place, and Emulsions of the four greater cold seeds.

II. *Another is cold*, which it *known* from the greatness of appetite, unless it be too cold, by sour belchings, if neither much nor cold meats have been eaten, nor flegm do abound, by wind and two much spitting. It ariseth externally from the six non Natural things, internally from the parts incumbent, as the Liver, Spleen, and Muscls of the Belly which induce a coldness. 'Tis *Cured*, 1. By appropriate heaters, but not too much, inwardly and outwardly moist, lest driness be caused. 2. By Diet, where Wormwood Wine takes place; it is distinguished into a positive, of which we have now treated, and a privative, which is conjoined with driness. It ariseth from the defect of innate heat which is Caused by things that heat too much, as the frequent use of Wine, the want of nourishment, the heat and driness of the incumbent Parts, as of the Liver, of the muscles of the Belly, and the Cal.

III. *Another moist*, which is *known* by want of thirst, by abundance of spittle, &c, it ariseth from external Causes inducing moisture, it is Cured. 1. With dryers without eminent heat or cold, as are the ashes *of Hens Guts, of Swallows, burnt harts horn, red Coral, troschiskes of Vipers, Galangal, burnt Salt.* 2. By a contrary Diet.

IV. *Another dry*, which is *known* by the extenuation and Contraction of the Region of the Stomach, which is accompanied with a slenderness of the whol body. It ariseth externally from a drying Diet, too much emptying and fumes of mettals; internally from the dryness of the incumbent parts. The cure is the more difficult, because with the Feaverish heat it induceth a consumption; if vomiting happen it argues a great want of innate heat; the Cure is performed. 1. By moistening which is best of al accomplisht by nourishments that are medicinal; 2. by Diet, where Milk takes place, beginning with a smal dose, new layed Eggs, Almonds, Raisons, Pine Nuts, &c.

There *is another compound*, the Nature of which may be collected from the simple: those that labor of a hot and dry distemper, have little blood, unfit for nourishment, are lean, bound in body, with Veins eminent, subject to the dry Scab.

Article III. *Of the distemper of the stomach with matter.*

A distemper of the stomach with matter is, when the stomach fals from its temper by reason of some humor either generated there, or falling thither from some other place.

The Signs and causes are put in the difinition; in the *differences* they shal be more largely Explained.

The CURE is finisht. 1. By the alteration and evacuation of the peccant humor. 2. By strengthning of the part by appropriate external meats. Looke into the differences.

The Differences of this Distemper are Divers.

One is from the matter generated in the stomach; then the Symptoms appeare continually; the whole body and al the members are sound. It is cured by emptying of the matter, which is comodiously done by medicines of aloes, hiera picra, mechoacan; and by corroborating the part. Another is from matter falling from another part, then that part which was periodically affected, is no longer troubled, some accustomary evacuation is suppresst; or the usual diet hath bin changed, or somewhat stops in the whole body, or in some particular part. The Symptomes are more remisse. For the cure we must have respect to the parts that send the matter.

II. *Another is from the matter sticking in the cavety of the stomach*, then there is a waving or nauseousnes which is attended with vomitinge or a loosnes. Another from the matter impacted in the coates of the stomach, then there is a nauseousnes without vomiting, oftentimes with the hickops.

III. There *is another chollerick*, viz. *hot and dry*, which besides the former signes is *discovered* by nauseousnes, bitternes of the mouth, with a certain sence of knawing, and sometimes by chollerick vomitings. It ariseth from choller, either sent thither from the bladder of gal, or generated there from corrupt meats. Tis cured. 1. By dyet, wherein chicken broath seasoned with lettice and endive doth excel. 2. By emptying of the matter, both by vomits made of the pouder of the down or flower of walnuts dryed in the smoak and given a dram weight in honey and water; and purgers compounded of hiera picra. 3. By alteration and coolers and moisteners, amongst which do excel succory and violet water, syrup of pomegranates, of coral of Quercetan, of strawberries, currans; tincture of roses, lettice and succory condite, &c.

IV. *There is another flegmatick, to wit cold & moist, which is known*, both by the signs formerly reckoned up, and by a sence of heavinesse in the stomach especially some hours after meat, by a waving & sowr belching, it proceeds from thin or thick flegm, tis cured. 1. By *emptyers* both by vomit, to which in thick flegm we ought to premise things incisive given in a solid form (amongst which excels diatrion pipereon, diacalaminth, the essence of balme, penny-royal, &c.) and by purging; so that the purges be administred either alone, or mixt with preparatives. The vomiters are, viz. of salt of vitriol given in broth, oxymel with the decoction of radish, *Heurnius* his vomiter of hellebor. 2. By *strengtheners*, amongst which excels inwardly taken, the roots of callamus aromaticus and citron pills, and of oranges, with the philosophical spirit of vitriol, and the Elixir proprietatis: outwardly, ointments compounded of the distilled oyls, of wormwood, mint, cudmin, peneroyal, mastick, a cerote of one part of pure Ladanum, with too parts of wax applied an hour before dinner, is good. 3. By a contrary diet.

Article IV. *Of the tumors of the stomach.*

A tumor of the stomach is when the same is elevated into a bulke or magnitude, greater than is due. It contains under it three things.

I. *Inflamation*, which is *known* both from the general signs, and also from the vehement pain, heat, thirst, a most burning feaver, vomiting or often going to stool, unless when the orifice or pylorus is possest, to these are addled the Symptoms of the principal faculties, if the brain be drawn into consent. It ariseth from blood preternaturally poured forth by the veins derived from the porta whether it be pure or mixt, whether sent thither or attracted. Tis cured after the manner of other inflamations, where observe, 1. that emptying by vomiting or stool is not convenient, unless where there is an eruption of matter collected. 2. Bleeding is rather to be repeated, than to take much blood at once. 3. Amongst external repellers, sugar of saturne with plantane or nightshade water, adding a little of wormwood or mint, is commended; internal things ought to be administred with a moderate actual coldnes. 4. resolvers which ought to be gentle and

Emolient,

Emollient, must be corrected with astringents by reason of the excellency of the part, 5. If suppuration cannot be prevented, the heat must be cherisht with things moderately hot, moist and clammy, both inwardly and outwardly. 6. The imposthumation may excellently wel be broken either with the juice of Scabious alone, or mixt with honey. 'Tis divided according to the parts of the stomach. One is of the whol stomach, in which what posture soever the sick lyeth down in, he is ful of pain. Another is of part of the stomach, 1. Either external, in which the pain after the concoction of the meat is encreased, by reason of the intension of the transverse fibres, the appetite is not very bad, nothing of the impostumation is cast up by vomit. Or of the internal part, in which al things are contrary; but 'tis better, if the matter pass into this, than under the peritoneum; because there it may easily be purged forth, but here not so. 2. Either of the upper part, in which because 'tis endued with exquisite sence, there happen most greivous symptomes, and the strictness is most of al perceived towards the latter end of swallowing, where the attraction is strongest. Or of the lower part, in which the pain is encreased more in the digestion of the meat. 3. Or of the former part in which the tumor may be perceived by the touch. Or of the hinder part, in which if the outside be affected, the sick can hardly lie down on his back, if the inside, not easily on his face.

II. An *Oedema* and *Scbirrus*, of which we meet with nothing remarkable.

III. An *Inflation*, when the magnitude of the stomach is increased by wind conteined in its capacity, 'tis *known* by its distension, molesting the region of the stomach above the navel by the tumor, and by its resisting the touch, by belchings with which the malady is eased. It *ariseth* from matter ministring wind, of which in its differences. 'Tis hardly cur'd, if it befal one recovering, because it signifies a relapse; if it be in acute Feavers, because it shews that the natural heat is wasted by the preternatural; if it last long, because it endeth in a dry dropsy. How it may be be cured, see in the differences. 'Tis divided according to the nature of the causes, 1. One is from *windy nourishment*, which is knowen by the patients relation, 'tis cured with good dyet and discussives, towit with ballsome of fenel, oyl of carawaies inwardly and outwardly applied, by baths of warm water, in which are boyled danewort roots, by baggs, by bread hot out of the oven sprinkled with oyl of Rue. 2. *Another is from a flegmatick matter which causeth wind*, and is *known* from the signs of a flegmatick distemper, *'tis taken away* by emptying the matter prepared, and discussing the wind, a great cupping glass, also doth discuss being applyed with much fire, without scarification, and often repeated, and one dram of sows pasterne bones burnt and prepared with Rue water given in a draft of wine.

Article. 5. *Of the wounds and ulcers of the Stomach.*

I. *The wounds of the Stomach* are *known* from hence, that the belly is loose, deeper over against the Stomach, hickops, and vomiting of choler do ensue, sometimes the meat and drink is cast up again. They are no waies cured, if the whol body of the Stomach be perforated, or if its upper part about the orifice be wounded; very difficultly, if only the outer coat, and if the bottome of the Stomach which is fleshy, and able to endure medicines. The cure is accomplisht as in other wounds; mastick any waies taken is good. The wound that penetrates, and is large, ought to be sowed up, leaving an orifice in the lower part; they must abstaine from al sharp things in their dyet.

II. *An ulcer of the Stomach* is *knowen, by* the pricking and ulcerous paine, by a heat molesting above the navel, caused by the receiving in of hot meat; by stinking belchings, by causes generating ulcers, by a slow feaver, &c. It ariseth, 1. From external things, as sharp medicines and poysons, and then the relation of the patient which shew it. 2. From sharp humors there derived from some other part, or generated there; and then we must have recourse to the distemper with matter. 3. From an impostumation broke after inflamation, and then this was precedent. 4. From the rupture of a veine, and then vomiting of blood proceeds. 'Tis hardly cured, both because deterstives cause paine, and because being alwaies moistened by the chyle it cannot be dryed. Inveterate ulcers cause a lientery. In the cure note, 1. The humors if there be any, ought to be brought forth only with lenitives. 2. Vomits are wholly to be shunned, lest that which is ulcerated be delacerated more. 3. To internal consolidating medicines, somwhat moderately absterstive is alwaies to be mixed.

Chap.

Chap 2. *Of the Symptomes of the Stomach.*

Article. 1. *Of the pain and heat of the Stomach.*

THe Symptomes of the Stomach are *Paine, Heat, want of appetite, too great appetite, a vitious appetite, too great thirst, hurt of concoction, hickops, belching, rumblings, nauseousness, Vomiting, and the Cholerick passion.*

I. The *paine in the stomach,* is a sad sensation of the same, arising either from things that distend it, or knaw it, and so dissolve its continuity.

There is no need *of Signs* in this symptom, unless the patient be diseased in mind.

The *Cause,* is explained in the definition, and we shal be more large of it in its differences.

The *Cure* hath respect unto. 1. The symptome it selfe, if it be too urgent, in rebating of which a bagg made of the roots of marsh mallows, camomel flowers, red roses & wormwood, is good. Quercetans anodyne water in his Pharmacop. restitut. Oyl of chamomel saphirine, a bolus made of three drams and a halfe of electuary diaphenicon, and two scruples of philonium romanum is most commended by some. Four grains of laudanum opiate with the decoction of chamomel. After the use of all which, things that strengthen the stomach must be applyed. 2. The cause it self, of which in the differences.

The differences are taken from the parts and Causes.

I. *There is one pain of the coats which is simple,* and to which the former things ought to be applied: another of the mouth of the stomach, which discovers it self by faintings and swounings, somtimes by immoderate sweats and anxiety: and then it arises both from an attrition of the Stomach, which happens after taking of meat with coldness, a stoppage of the pulse, and breathing, either from the meat boyling in the Stomach before it be sent forth, or turned into flegm; and tis cured with oyl of spiknard applyed hot to the Stomach, and one dram of pepper exhibited. And from the astriction of the Stomach, which happens by reason of the astriction of both orifices, and the meat descending it ceaseth; they ought to be distinguisht. The cure is past hope, if it befal them who have an orifice of exquisite sence; if their extreme parts be cold, and if it proceed from poysenous things.

II. *Another is from external causes,* as kernels, pins, sharp, corrupt, or much meat, and then a vomit does good; and if poyson have been taken, things alexipharmacal must presently be applied.

Another is from internal causes. 1. From humors, viz. Cholerick, Flegmatick, either falling thither from some other part, as is wont to be in feavers, or generated there, which if by mixing with the meat they become less acrid, upon taking of nourishment the paine is asswaged; if cleaving to the coates they are stirred by taking of meat, or sticking to the bottom they be raised up, the paine is increased after meat. The cure ought to be fought from the chapters of distempers. Observe that hiera in a tough humor ought to be mixt with stronger medicines that it may overcome the matter. *Zacutus* his syrup and pouder, Lib. ult. c. 2. n. 11. hist. is very good. 2. From vapors either contained there, of which Tit. 2. c. 1. a. 4. Or sent from some other part, from the womb, worms, &c. 3. From worms ascending to the orifice, of which in its place.

III. *Another is from diseases molesting the Stomach,* viz. *distemper, tumors, wounds, ulcers, &c.* of which we treated before.

II. *The heat of the stomach, is an ebullition of humors in the stomach caused by the power of preternatural heat, so that the heat is perceived even to the throat.*

There is no need of signs in this symptom.

The CAUSES, are acrid vapors raised either from meat acrid in its own nature, in cholerick bodies, during the concoction of the meat, and the Stomach troubled with strong motion; raised up from a cholerick humor, which whiles they are compelled to break forth by the gullet sticking there, they burn that, and the mouth of the Stomach.

The CURE, is more difficult in those whose substance of the stomach is as it were besmeared with choler, because the Region of it is dyed by the bladder of gal with a saffron color, and the same stain doth penetrate even to the internal membrane. It doth respect, 1. The heat it self, to allay the which many remedies are given; the chief are these, a Bolus compounded of two drams of sugar of Roses, two ounces of crabs eyes prepared and bole armenick half an ounce, swallowed in parcells. A pouder compounded of Christal calcined one dram

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and an half; Pearles prepared one scruple; Coral prepared, Chalk, each one dram, Sugar Candy two drams: the dose is one dram given in drink. Spirit of vitriol coagulated one scruple given in drink, which ought to follow a liniment of the best pomado half an ounce: Camphire one dram, oyl of bricks two drams, badgers grease half a nounce; Salt of vitriol one dram. 2. The cause of the heat, which is to be tempered, and emptyed.

Article, 2. *Of the want of Appetite.*

An anorexy, is the prostration of appetite in relation to all meats, arising from the defect of the sence of sucking in the upper orifice of the Stomach.

This symptom needs no *Signs*, The patient complaineth, and 'tis observable by the standers by.

The CAUSE, is the defect of the sence of sucking in the lower orifice of the Stomach, which from whence it proceeds, shal be said in its differences.

The CURE *is doubtful*, if it happen in the declination of a disease, or from the long continuance of it, or from weakness, or imoderate evacuation, because it indicates the extinction of natural heat, and threatens a relapse. If it befal children, who are naturally great eaters, and want much nourishment, because it signifies a great preternatural excess. If it afflict in a disease of long continuance with sintere stooles, because it shews an extinction of the appetitive faculty in the orifice of the stomach, either by reason of extraordinary cold, or of some matter excreamly putrefied. If it arise from the brain by the hurt of the nerves of the sixth conjugation. Of little hope, if in some disease there presently follow it a great appetite to meat, no crisis preceding, nor an abatement of the disease, because, it signifies a hurt of the brain, and an extinction of the sensitive faculty. It relates to the causes, of which we shal treat in the differnces.

The differences of the prostraction of appetite are various.

I. One is *Greater*, which is properly called *Anorexy*, in which nothing at al is *desired*, with which agrees the former definition. Another is less, called a dysorexy, in which meat is desired, but less or later than nature requires it, it and arises from the sence of sucking weakned or overthrown.

II. There is *another without nauseousness and hating of meats*, which may be called inappetency; of the Causes of which shal be treated in the following difference. Another with hating, and tis called a loathing of meats. It ariseth from Cholerick and corrupt Juyces, yet void of acidity and saltness, which because they are unfit to nourish the body, they are not sucked in by the veins, yet do possess the Orifice of the Stomach. 'Tis Cured with those things which do correct a hot distemper, and empty the Humor. See the Cataplasme, in *Zacutus* l. vlt. c. 1. n. 5.

III. There *is another from the want of Sucking*, which is Caused, 1. *By the abundance of nourishment in the whol body*, in which the strength is not cast down, the which is taken away by fasting, exercise, frictions, &c. 2. By *an impotency in the Stomach*, to corrugate or wrinkle it self up, either by reason of a distemper, either hot, relaxing the stomach, and diffusing the matter; or cold, destroying the Native heat, the first Cause of appetite: or by reason of a redundancy of vitious humors, especially crude Excrement, insipid, Clammy and Flegmatick, whether generated out of the meats, or flowing thither from some other part. The Cure ought to be fetcht from the Chapter of distemper. 3. *by a defect and weakness of attraction.* Either by reason of a cold and moist distemper, or by reason of the interception of the passages, by the obstruction of the mesaraick and hollow part of the Liver, in the Cure of which, those parts must be respected. 4. By *hindrance of Evaporation*, either when the substance of the body is not emptyed, either by reason of the constipation of the pores and thickness of the Skin, which a Bath of sweet water wil take away; or the weakness of Native heat whether acquired by a cold distemper, or idlenss, or by reason of the tenacity, fixt and firme concretion of the substantifical moisture, which doth not easily yeild to the gentle and pleasing heat that feeds upon it.

There *is another from the not perceiving of the sucking*, which, 1. by Diseases of the brain in which either the Nerves of the sixth pair are affected, or the Animal spirits are not generated, or their influx is hindred, or which happens in acute Feavers, they do languish, or the faculty, as in the Phrenitical, &c. is converted another way. The Cure ought to respect those Diseases. 2. by Diseases of the Stomach it self, whether they be of distemper, or of Composition, or of solution of unity, of

which

which we treated before. The appetite is raised by taking away the causes, partly by cooling things if a hot Cause did precede, partly by heating things, if a cold. Wormwood Wine is very much commended.

Article, III. *Of too great Appetite.*

Too great Appetite is distinguished into two Species, viz. *A Dog-like Appetite, and Bulimus.*

I. *A Dog-like Appetite is a continual insatiable desire of Eating, arising from a Vehement sense of sucking in the mouth of the stomach, afflicting somtimes with vomiting, somtimes with a loosness.*

There is no need of SIGNS, whereas they are expresst in the definition.

The CAUSE is a Vehement sense of sucking and pricking in the Orifice of the stomach, but whence it comes, is explained in the Differences.

The CURE which is timely to be administred, least the sick fal either into a custome of vomiting, or into the Cæliacal passion, or into a dropsie, doth respect. 1. The hunger it self, which is allayed either with the Use of Fat things; or with the Yolks of Egs hardened in Water, or what is best with Wine. 2. The Causes, of which we wil treat in the Differences.

The *Differences* are taken from the Causes urging the Suckings.

I. *One is from the too great want of nourishment in the Body*, or by Reason of worms feeding on the Child, which shew themselves by biting, and they are cast forth by the use of Hiera Picra; or by reason of too great Evacuations both sensible and insensible, by the habit of the Body, by Reason of too great a heat of the moisture, to which conduceth much, the tenuity of the Humors, and thinness of bodies, Laxness of pores, &c. And then sweats do molest; The Cure is to be turned to the Particular Diseases. Or by reason of the long use of Detersive Nourishment, as Figs, Lobsters, &c.

II. *There is another from cold, acid, and more austere Humors*, wrinkling the Orifice of the Stomach, compressing and pulling it: as are acid Flegm, and Melancholly poured into the Stomach, and then the signs of a cold distemper are present; amongst purger Hiera Picra is good, as also *Zacutus* his Wine, Lib. Ult. Hist. Prax. ca. 2. n. 9.

II. *Bulimus is a great Appetite, Periodical, which aftentimes ends in a Nauseousness with Faintings away, and loss of strength.*

The *Signs* are explained in the Definition.

The *Cause* is doubted of by Physitians: yet most do hold that tis a cold distemper of the Stomach, whereupon tis wont often to happen to those that make long Journeys through deep snow.

There is no Cure, if it happen in Chronical Diseases, somtimes after Feavers and other Diseases it threatens a relapse. It respects, 1. The time of the fit, when the swouning happens, in which we must use frictions and revivers, as the smel of Wine, Vinegar, &c. 2. The time out of the fit, in which after the sick hath recollected himself, meats of good juyces must be ministred, bread dipt in Wine, &c. And by external means the heat must be restored to the Stomach.

Article, IV. *Of a Depraved Appetite, or Pica.*

Pica, which is also Citta and Malacia, (is so called from the bird Pie which is sick of this disease) *it is an absurd appetite to a strange substance liquid or solid, beside the ature or essence of nourishment, from a sad sense of sucking, and corrupt judgment not discerning things fit, or unfit for eating, from a Vitious Excrement imbibed in the coats, by a peculiar propriety of substance molesting the mouth of the Stomach.*

The SIGNS are manifest, because they desire meats of Vitious qualities: there preceded exces, indigestion, use of meats and drinks of evil qualities, a suppression of the Courses, &c.

The CAUSE is a sad sense of sucking Molesting, which is Caused by the matter impacted in the Coats of the Stomach, either acting by its whol substance, or by a manifest quality, arising from an evil Course of Diet, or sent from some other part, as from the womb, whereupon tis familiar to Childing Women about the second and third Month: but there is wont at the beginning while the Causes do alter, to be raised a desire of contrary things; but when by long custome there is a familiarity contracted, things like are desired.

The CURE must be haistened, lest a Cacochymy or Dropsie be caused.

The peccant matter is most commodiously cast

caſt forth by vomit, which in Childing Women muſt be Cauſed by thoſe which are more gentle. The Stomach may be ſtrengthened with water of Cinnamon, of Orange Pils, magiſtral of Corals, &c.

Article, V. *Of too great Thirſt.*

Too great thirſt, or Poludipſia, *is a greater and oftner deſire of accuſtomary drink, by reaſon of a ſad ſence of ſucking in the Mouth of the ſtomach, ariſing from the defect of moiſt nouriſhment, and the alteration of its proper Humidity.*

The SIGNS of the Symptom are manifeſt of themſelves.

The CAUSE is a ſad ſenſe of ſucking which the want of moiſture, and the plenty of heat have raiſed: but whence that proceeds, ſhal be explained in the Differences.

The CURE doth reſpect, 1. The too urgent Symptom; which is mitigated by Cryſtal or Coral held in the Mouth, cold water corrected with a little Vinegar, the juyce of live Crabs with water of violets and Houſleek, ſprinkled; with a little Niter, a Lohoc compounded of the Mucilage of the Seeds of fleawort and quinces, of each half an ounce; Sugar Candy of violets pouderd, Starch, Tragacanth, of each one dram; Syrup of violets as much as is ſufficient. With ſpring Water boyled with Sugar Candy, adding a Pome Citron cut in two, &c. II. The Cauſes of which ſhal be treated in the Differences.

The Differences are taken from the Cauſes.

I. *One is from the defect of the devviſh ſubſtance of the Stomach,* which is *known* from the preceding Cauſes, abſence of loathing, &c. it ariſeth from thoſe things which can waſt moiſture, as are Labors, watchings, faſtings, immoderate Evacuations, &c. The Cure is to be perfected with meat rather than with drink, water which cauſeth vomiting and a looſneſs in them, is to be ſhunned: the beginning muſt be taken from moiſtning, which a gentle cooling ought to follow.

Another from the diſſipation of the moiſture in the Stomach through heat, which is known by the loathing of meat, roughneſs of the Jawes, bitter, Salt nitrous taſt. It ariſeth, 1. Either of it ſelf, or from external things, the hot Aire, ſharp, Salt meats, hot Potions, Vehement Motion of the Tongue, poyſons; al which ought to be removed. Or from internal Cauſes, as chiefly from an inequal diſtemper of the Stomach, where we muſt empty; and moiſten with an Emulſion of the four greater cold Seeds. 2. Or from other Diſeaſes, viz. A Feaver, heat of the Lungs, a dropſie, &c. The Cure of which muſt be fetcht from their proper places.

II. There *is another without a Feaver,* which Choler, or Salt Flegm do Cauſe.

Another with a Feaver, in the beginning of whoſe fit no drink is to be adminiſtred, leſt a greater heat be kindled, but the thirſt muſt be deluded by things held in the Mouth; in the Vigor we muſt uſe moiſtening and cooling *Gargariſms*; in the declination, unleſs the Patient wil abſtain, drink may be allowed, that ſweats may flow more plentifully.

Article, VI. *Of the hurt of Concoction or Chylification.*

The hurt of Concoction, is a fault of the concocting faculty in its action about the nouriſhment, by vvhich it comes to paſs, that it either doth not concoct at al, or ſlovvly, or depravedly.

It contains therefore three things under it, Bradupepſy, Apepſy, and *Dyſpepſy.*

I. *Bradupepſy, is a ſlow and weak concoction,* when the meat is left either half crude, or is not diſgected but in a long time, by reaſon of the fruſtration of the faculty, and weakneſs of heat, chiefly proceeding from a cold diſtemper.

The SIGNS are, a diſtention of the ſtomach by winde after a ful Concoction of the meat, the ſent of the meats riſing to the Palate many hours after, ſour belchings, Flegmatick vomitings, ſtooles moiſt and crude, the Concoction of meats eaſie to be concocted, ſcarce done in a long time. The *Adæquate cauſe* is the fruſtration of the Concocting faculty, which either is hindred by ſome Organical Diſeaſe, as a Tumor, inflations, &c. Or is weakned by a cold diſtemper induced by thoſe things, which either do cool, or ſuffocate, or diſſipate, or withdraw the nouriſhment, or tis hindred by an external error, which either Excrements heaped up in the ſtomach, or ſent from ſome other part do Cauſe; or nouriſhments not regularly taken, in juſt quantity, quality, time and order; or ſleep.

The CURE, unleſs the griefe proceed from an external error; is principally to be directed againſt a cold diſtemper; for this in-

wardly, are good, the tincture of amber, magistral of corals, Elixir proprietatis, Diacorum nobile, the fruit of Eglantine condite, extract of calamus aromaticus, of Juniper berries, of Zedoary, spirits of vitriol if crosse humors are presumed to be in the stomach, but 'tis then worst of al when the heat of the stomach is Languishing, for this, the blewish or green spirit of wormwood, *Mynsichtus* his elixir of vitriol, syrup of Juniper berries, conserve of roses vitriolare, the phylosophical salt compounded of salt of niter prepared and molten, gemmæ, each two drams; of wormwood, blessed thistle, tamarisk, each one dram; of galangal, cubebs, mace, each two scruples; *Birckmannus* his pouder of the root of cuckowpint prepared in *Quercetans* Pharmacopea. The distilled oyl of orange pils, of wormwood, *Bartoletus* his potable oyl, of nutmegs, cinamon, mastick, &c. outwardly do best agree, *Cratoes* stomach oyl, tacamahac, balsome of Peru, *Hartmans* stomach scutum, *Stokerus* cerote of ladanum, &c.

II. *Apepsy, is the concoction of nourishment in the stomach quite abolisht*, proceeding from the privation of its alterative faculty, by which it comes to pass, that it descends crude into the guts.

The SIGNS of it are, the precedent causes, belchings after the space of 6. or 7. hours, savoring of the nature and quallities of the meats, the casting up of them inconcocted, or voiding them so by stoole, &c.

The CAUSES are stronger than those, which were alledged in a Bradypepsy.

The CURE also ought to be fetcht from thence, the arcanum of tartar is commended, if ten grains of it be taken every day in broath.

III. *A dispepsie or diaphthora, is a corruption of the meat, and a change of it into a strange qualitie, by reason of the frustration of the concocting faculty of the stomach.*

The SIGNS of this are, nidorous belchings, adust, acid, fat, stinkings, which are often attended with rumblings of the belly, murmurs, pains bitings, vomitings, very stinking stooles, impatiency of hunger, anxiety, &c.

The CAUSE is the distemper of the stomach, and that oftentimes hot, which burns up, corrupts, and putrefies the meat; but every thing corrupted, according to its nature puts on a strange quallity: hence it is, that things smel so diversly. Chiefly the nidorous corruption is the off-spring of heat, which ariseth from hot diseases, nourishments of the same quality, and easily corrupted, as milke, fishes, mushrums, fading fruites, the sowr corruption proceeds from cold.

The CURE is to be turned to the distemper, the hot one chiefly, of which we spake before; here the Spirit of sorrel, and *Quercetans* syrupe of corals chalenge the first place.

Article. VII. *Of the Hickopps.*

The Hickop is a convulsive motion of the stomach, consisting of the distension and dilatation of the fibres of its upper part, by which the expulsive faculty being irritated, doth endeavour to cast forth things hurtful that are fixt in the coats of the stomach, especially of the mouth of it and gullet, with a noise and vehement contorsion.

There is no need to reckon up the signs, 'tis heard by the standers by.

The CAUSE is matter residing sometimes in the whole stomach, but pulling the stomach either by an inimicous quallity, or by compressing it.

There is no Cure, if a Dilerium happen with it, because it is an argument, that either acrid vapors are raised up to the head from the stomach inflamedor that the brain being inflamed, the evil is comunicated with the nerves of the orifice of the stomach, if it arise in a deepe sleepe, in swouning fits, or convulsions. The cure is doubtful, if fainting be feared with it, if it befal old people purged above measure, if it arise from an inflamation of the liver; if it invade after vomiting, because it is a signe the stomach or braine suffers no smal inflamation; if it happen in sincere vomiting, because there is signified some great burning of the parts about the stomach; if it proceed from the Ileon, because tis an argument that some nervous part wch hath consent with the brain is affected, if it be joyned with losse of speech. It respects, 1. The symptom it self, which is restrained by things stupefying, as of *philonium romanum* one scruple; saffron, cinamon, each two grains; *Laudanum Opiate* one grain, with oyl of sage as much as is sufficient. 2. The causes, concerning which consult with the differences.

The differences are taken from the causes and other things.

I. *One is from external causes*, as refrigeration, either by reason of the ayre, or cold drinke, where holding of the breath, and anointiag of the back and stomach with hot

oyls

oyls doth help. From sharp nourishments or medicines, where Ptissan drink, or oyl of sweet almonds is a remedy from too much emptying, which is followed with a drines and corrugation of the stomach, where an imulsion of the four seeds with temperate anolepticks takes place. From corrupt meats, wch aloes wil purge forth; from poyson taken, which treacle resists.

Another is from internal causes, as are. 1. hot and acrid humors, which require a vomit or gentle purge, by the use of terra sigillata, or bole armonick, they grow more mild. 2. Cold humors, which must be prepared and emptied; the extract of castor is of force, oxymel of squils, Elixir propriates; and sneezing takes its place. 3. Winde, which is discussed by a nodulus compounded of dil and poppy seeds, by oyl of Cumming seed, or by the imposition of oake ashes sprinkled with mallego wine, aplaister of bay berries. 4. Matter which is wont to be in an inflamation of the liver. 5. internal diseases, as an inflamation of the liver, wombe, stomach, brain, or some other part; also a feaver, in which observe, in the begining of the feaver it ought to be taken away by gentle evacuation; in the state we ought not to feare, because tis a signe there wil be a crisis by vomiting; in the augment it signifies either that the humor flowes to the cavity of the stomach, and then the hickops is sildomer, and by taking of meat, or a gentle medicine 'tis layd: or into the substance of the stomach, and then the hickops is so frequent, that by reason of it the patient seems to be choaked; it must be stopt by stupefactives, if by reason of the vehemency of the feaver we may not purge.

Article, 8. *Of belching and rumbling.*

I. *Belching is a violent breaking forth with noise of wind residing in the Stomach, through the upper parts.*

There is no need of signs to discover it, for it is manifest.

The CURE must not be neglected, for if they be frequent and much, they signify the vehemency of the cause, and trouble digestion; if they be before meat they dispose to the colick, if after, to the dropsy. Yet belching is good if it be supervenient to an asthma; if it happen in a long loosnes, when as it was not before, because it is an argument that there is againe some concoction. It respects principally the cause, of which elsewhere.

The CAUSE, is wind generated in the stomach, or sent thither from other parts especially from the hypochondria.

As concerning the differences 'tis divided threefold.

I. *One is moderate* which (because it voids by the mouth windy excrements) *is not to be stopped*: another frequent, which is to be taken away.

II. *Another is acid*, which is either from meats of hard concoction, or from a cold distemper of the stomach, and then honey, sugar and other things turne sowr. If it continue long it threatens a dropsy or lientery. The sick are not easily subject to a pluresy. The cure is to be turned to the distemper.

III. *Another is Nidorous*, which is either from the meats sending such a vapor from them as are radishes, onions, fryed meat, fryed eggs; or from the too much heat of the stomach. So corrupting the meats, whether it be so, either essentially or by consent.

IV. *There is another insipid*, which proceeds either from flatulent meats, or from the plenty of it; and if a long time after the takeing of the meat it savour of the same, it signifies a great weakness of chylification.

II. *Rumbling is a sound of the belly caused by humors or wind, running up and down the Stomach or gutts.*

It hath the same causes; the differences are allotted, both according to the diversity of the sound, whose cause is plenty of excrement, and the largness of the passages; and the nature of the part in which it is conteined. For it is dry and thin which makes an acute sound; moist and thick which makes a grave or base. It is either in the thick guts, from whence the graver sounds break forth; or in the smal gutts, from whence the clearer and acuter: and if there be moisture with it, there ariseth a smal murmuring, which is the fore-runner of a moist stoole at hand. It is either in the cavity, or within the coats: nay there hath been knowen a wind that ascended to the throat, making shew as if it would suffocate, and after an hours space hath returned to the stomach.

Article, IX. *Of nauseousnes and Vomiting.*

I. *Naueousnes is a vaine desire to vomit with a sad molestation, heat and anxiety, by*

which the stomach, contracting the lower parts, and dilating the upper, doth endeavour to cast forth those things which are offensive to it; but by reason of weakness, or the scarceness or contumacy of the matter, it voids nothing by the mouth but a thin watry humor.

There is no need of *Signs*, the causes are declared in the definition, and differ only gradually, from those which cause vomiting; therefore we shal treat of them, when we do of vomiting.

II. *Vomiting, is a sensible and palpable casting up with violence through the upper parts, the matter conteined in the capacity of the stomach.*

There *is no need of signs*, when as the symptome is manifest. But the business is not of that which is Critical, which happens as the work of nature for the benefit of the sick, and either lessens, or takes away the matter: but of that which is symptomatical, which is foretold, by a paine in the head caused by consent, darkeness appearing before the eyes, rigour, coldness of the lower parts of the hypochondria moveing of the lower lippe, the flowing forth of much drivel, &c.

The cause is whatsoever can offend the upper orifice of a weak stomach, and irritate it to expulsion, either by its plenty, or biting quality, or by the nature and disposition of its substance.

The Cure is difficult, if al colours be vomited because they signify dangerous affections in the body, if that vomited be of a leek color or black, because it indicates an excessive heat in the veins, and great corruption of the humors, unless it proceed either from the crudities of some meats, or be critical. 'Tis past hopes; if the matter be livid, and smel strong, because it denotes putrefaction with an extinction of the native heat: If with it, there be other matter which from the corruption in the body hath contracted blackness, it being by nature not black, it relates to, 1. The urgent symptome it self, which is to be stopped, 1. By revellers, whether they be strong and sharp Clysters, or hot things applyed to the extream parts, 2. By things that compress the motion of the expulsive faculty, and strengthen the Stomach. Inwardly are commended, *Zacutus* his Pills, lib. 9. hist. prax. cap. 1. num. 4. Lignum aloes poudered and given with the syrup of the sharp juice of Citrons. The crude juice of quinces taken a spooneful, laudanum opiate, a vomit. Outwardly a plaister of treacle, *Zacutus* his cataplasme, an epithem of the decoction of wormwood, mint, made in smiths water.

The differences are taken chiefly from the causes.

I. *One is from external causes*, as are meats either taken into great quantity, or offensive, by their hurtful qualities, vomiting medicines (then are comended new treacle, spirits of wine) imoderate drinking and drunkenness, vehement motions after meat, unaccustomed going to Sea, violent coughing, the phansie and beholding of things loathsom, blows on the body, a wound of the skul, poyson taken, &c.

Another is from internal causes, either diseases, or humors, of which shal be treated in the following difference.

II. *Another is from diseases infesting the stomach, as are, Ulcers, tumors, straitness and smallness, the stoppage of the lower orifice, which must be considerd in the cure.*

Another is from humors, which are either bred there, and then there was some fault in the dyet, with a continual nauseousness; or flow from some other part, and then there must be respect had to those parts; or they lie in the cavity of the stomach, and then they are cast up with a little straining, there is a distension and anxiety after meat, and vomitings when they have taken no meat: or they adhere to the coats, and then they vomit not, unless upon taking of meat nauseousness is very troublesome. These humors are, 1. The *Chyle*, which must be suddenly remedied lest an atrophy steale upon us; this happens in an ulcer of the Stomach. 2. *Excrements*, which are cast upwards in the *Iliaca passio*, as also Glysters. 3. *Blood*, which is cast up either by reason of the cutting of some member, or after the suppression of some evacuation of blood: where it must be dissolved lest it putrefy, with oxymel in which a dane-wort root hath been boyled, afterwards it must be emptied, at last it must be stopped, with two ounces of the water of the greater nettle, & spirit of vitriol as much as is sufficient for a gratful sharpness, wth the essence of *crocus Martis*, & gelly of Quinces, with the old conserve of roses given with gum tragacanth; Or by reason of the opening of the vessels, where the same means must be used. Syrup of *purslane* with terra sigillata is powerful in astriction. 4. *Cholor* sometimes comes theither, if the channel of choler be in-

serted

ferted into the Stomach; and then the nature of the humor caſt up muſt be conſidered: vomiting troubles them moſt when they are faſting: 'tis ſometimes happily ſtayed by opening the *Salvatella*, if we may credit *Zacutus*. 5. *Flegm, melancholly, matter, worms, ſtones, &c.* which are beſt of all diſcovered by their proper ſigns.

Article, X. *Of Choler.*

Choler, whether it come *apo tes choles*, that is from yellow choler, from which it moſt frequently ariſeth; or *apo ton cholodon*, that is from the gutts, *is twofold, moiſt, and dry.*

I. *Moiſt choler*, which alſo *is the true, is a continuall and imoderate caſting off of an evil humor, with great perturbation and violence, both through the upper and lower parts, ariſing from the violent irritation of the expulſive faculty.*

The ſigns are, often voiding of cholerick humors, a great paine in the belly and bowels, paine at the heart, thirſt, a pulſe ſmal and frequent, to which do oftentimes ſucceed, faintings, and coldneſs in the extreame parts.

The Cauſe is a ſharp and corrupt matter, whether ariſing from meats bad in themſelves, as the eggs of the barbel fiſh, muſhrums, melons, cowcumbers, plums, fat things, herbs, leeks, onions &c. or bred elſewhere and ſent to the ſtomach, as ſhal be ſaid in the differences.

The cure muſt be haſtend by reaſon of the acuteneſs of the diſeaſe; yet there are ſome, in whom this cholerick paſſion & a laſk at certain periods, doth empty al the ſuperfluities of their bodies. *It reſpects*, 1. *The furthering* of either of the *evacuations*, if one be too much, the other too little. 2. *A tempring of the humors.* 3. *A ſtrengthning of the part.* 4. *A reſtoring of the ſtrength and ſpirits*, too which end *wine* is good, if there be no feaver. 5. *A mitigation of the Symptomes*, of which in the differences.

As for the differences.

There is one, *when the matter that irritates is conteined in the Stomach, which is known by this*, that there is preſent, nauſeouſneſs, a ſtraitneſs, knawing and pain of the ſtomach; *It ariſeth*, from ſtrong purging medicines. Concerning the *Cure* obſerve. 1. That the flux muſt not be ſtopped, if the evacuation be plentiful, and the ſtrength be not impaired. 2. Where the irritation is great, and the evacuation ſmal, vomiting muſt be furthered by gentle vomiters, and purging by benigne purgers and laxatives. 3. Where the evacuation is great, and irritation ſmal, we muſt uſe aſtringents and ſtrengtheners together, 4. If vomiting be exceſſive, we muſt move by ſtoole, if a looſneſs be too much, we muſt act with vomits compoſed *of whey* with ſyrup of roſes, 5. *Inwardly crocus martis* rightly prepared doth ſtop it beſt of al. The decoction *of Cloves, Maſtich, and Red Roſes*, made in red wine, *Laudanum opiate*: *the ſponge* that is wont to grow on ſawallows given four grains weight in red wine. *Outwardly* a Sea ſponge boyled ſtrongly in vinegar, and laid upon the ſtomach.

Another is, *when the matter flows from elſewhere*, as from the liver, pancreas, gutts, meſentery, into the ſtomach. *'Tis known* by this, that for the moſt part there is preſent a malignant feaver, and convulſins trouble them: the matter offending then is, *Choler like yolks of eggs, yellow, aduſt, or ſalt, nitrous, and corrupt.* In the *Cure*, 1. The courſe of the matter flowing thither is not preſently to be ſtopped. 2. If it flow too much, it muſt be diverted by medicines either to the skin, or to the paſſages of urine, or it muſt be called to the outward parts, by frictions, ligatures and the like. 3. It muſt be qualified and the parts ſtrengthened. *Inwardly Chriſtal* is good, given half a dram weight. *Outwardly* epithems made of the juice of *Endive, Purſlane*, with barly flower. In courſe of *diet* bread dipt in the juice pomegranates is good, &c.

II. *Dry choler*, which alſo is *the baſtard, is a voiding of a flatulent ſpirit through the upper and lower parts, with a puffing up of the belly, with noiſe, and a pain of the loynes & ſides.*

The SIGNS *and immediate cauſe*, are expreſt in the definition.

The CURE, which alſo muſt be haſtened, *doth reſpect.* 1. *The bringing forth* and diſcuſſing *that flatulent ſpirit* where Glyſters and carminative decoctions take place. 2. A *Removal of the Cauſe* from which it ariſeth, of which in the differences.

As concerning the *Differences.*

One is *From the fiery heat of the ſtomach corrupting the meats*, and converting them into a nidorous matter and ſharp vapors, in which the cure muſt be turned againſt a hot diſtemper, and outwardly the boyling hot hypochondries muſt be cooled.

Another is from *ſharp and windy nouriſhment*

ments, as Raddish, Rocket Seed, fryed Egs, and the like: and then the matter must be emptyed, and give diatrion Piperion.

Another is *from Black-choler* and other adust and Salt Humors lurking about the Hypochondries, and growing hot by the mixture of another Humor; as we see Salts and saline spirits being mixt with acrid spirits, do yeild a great quantity of spirits.

Title, III. *Of the Affects of the Guts.*

Chap. I. *Of the Diseases of the Guts.*

THe Diseases of the Guts are Cheifly, *Inflamation, Straitness, Wormes, Rupture, Wounds, Ulcers*, and the affects *of the right Gut.*

Article, I. *Of the Inflamation of the Guts.*

An inflamation of the Guts is a swelling of them arising from blood out of its vessels falling into them and putrefying.

The SIGNS are a fixt and distending pain, the perceiving of a Tumor, that the Guts may be perceived to be rowled up like the strings of an instrument, costiveness of body, a stoppage of the Urin, a Feaver present.

The CAUSE is explained in the definition. In the Autum the blood chiefly flows thither, by reason of its thinness, because the thin and moveable Humors generated in the Summer, by the inequal cold of the Autum, are driven to the center of the body.

The CURE must be ordered according to the rule of other inflamations, and that quickly, because the evil is acute, and oftentimes turnes to a gangrene, and mortification. The cooling Medicines, which are administred for it, ought to be without astriction; we must wholy abstain from Purgers, lest the place affected be exasperated.

'Tis *divided* according to the place and Causes.

I. One is *of it self*, of which we have now treated; another from *the Navel Rupture*, of which in its place. Another from *the Rupture of the guts*, in which the Guts ought presently to be put back into their place. Another from *a contusion*, in which, to those things which are applyed for the inflamation must be added somwhat lenifying and concocting.

II. One is in the *smal guts*, which is most common, in which a distention of the stomach, straitness of breathing, daily vomitings, do molest, that they are not able to contain their drink, the pain and Torture tends most to the upward parts. Another in the *great Guts*, in which the pain reaches more to the Hypochondries, there is a heavines in the Loins, and vomiting is not so continual.

Article, II. *Of the Straitness of the Guts.*

The Straitness of the Guts is known cheifly by this, that the Excrements of the Belly are not rightly cast forth by stoole.

It hath its *Differences* according to the Nature of the Causes.

I. One is from *External things that are astringent and drying*, as quinces, and other things, which is known by the relation of the Patient and standers by. In the Cure are required things moistening and mollifying, fat things, &c.

II. Another is from *the Excrements harded*, obstructing them, which *is known* by this, that there is no Tumor, pain, yet the Excrements are not cast forth. It *ariseth* at that place especially where the smal and great Guts end, either from too dry matter, and drink to much diluted, or from the heat of the neighbouring parts sucking up the moisture.

'Tis *Cured* by Mollifiers, by *a bath of sweet Water* with emollient Herbs, *by the Grease of a* rosted *Goose* cast in by a Clyster, by blowing up the Guts with a Pair of bellows, which must be followed with a strong Clyster with half a dram of Sal gemæ.

III. Another is from *Inflamation*, of which we spake in the former Chapter.

IV. Another from the growing together of *the Guts* which is incurable.

V. Another from a Rupture or worms, of which shal be spoken hereafter.

VI. Another from *thick Flegm*, which *is known* by this, that Causes generating that went before; crudities, slowness of the belly to stoole, and much wind abound. It *ariseth* from the fault of the Diet, and the feeble heat of

of the Guts: and if it stick there long, it grows so thick that it wholly stops up the Guts. *It is Cured* by things that cut flegm, and sharp Clysters, concerning which consult with the Chapter of the Cholick.

Article, III. *Of Worms.*

Worms are smal creatures wholly preternatural, generated in the guts out of a thick clammy and viscous Humor, having in it the principal of life in its kind, by a vivid heat raised up by putrefaction, which do hinder the actions of the Guts.

The common signs are many, to wit, a stink in the mouth, disturbed sleep, with skipping, trembling, noise and gnashing of the Teeth, Itching and often rubbing of the nose; a pale face, sometimes by fits ruddy, hollow and dark Eyes, the white of which is changed into a Saffron or Pale, running of drivel from the Mouth more than usual, a distension and puffing up of the belly with murmurs, a knawing in the belly, & that exasperated in the time of hunger, sometimes a loosness, vomiting, falling-sickness. If in the morning while Children are fasting, cold water be sprinkled on the Mouth of the stomach, they wil al gather together, and this sign hath most weight with it, if the Age of the Child wil bear with it.

The CAUSE is a viscous and Flegmatick Humor which ariseth from much eating, meats that easily corrupt, & generate a thick juyce, as cheese, Milk, pulse, decaying fruits, sweet things, sugard things, honyed things, &c. It hath something analogous to seed endued with a formative faculty, and a vivifying discretion, which doth dispose the matter to receive this, and no other form of worm, and being disposed doth Cloath it with that from, as we see peculiar worms do proceed out of wormwood, Sea Salt, a Horse, a calfe, Mulberry leaves, Cheese, Honey.

The CURE, which is *Difficult*, if there be many, great ones, red and of divers colors, living; if in the beginning of Feavers and acute Diseases, as also in the augment, by the malignity of the Disease they be Symptomatically voided, *Is Performed*, I. By things that kil them, those which are bitter, acrid, Salt, or enemies by their whol propriety, ought to be given upwards, but alwaies mixt with sweet things, downwards premising sweet things, then when they are in the lowest places or in the right Gut: with them Oyl ought to be mixed, that they may be stifled in it, with cheese butter, which they exceedingly fear. The chiefe things that kil them are *hot*, as *Coralline* given in pouder one dram, *Wormseed, centory the less, peach flowers, Myrrh, Aloes, Zedoary, the Juyce of Rhadish, and cresses; Cold, hearts horne burnt, Purslane* Water, juyce of *Endive, Grass* Water, with a little Vinegar and Sugar. Of Internal *Compositions* the Pouder of Dr. *Mencelius* my wives Granfather, excels; 'tis compounded of *the Flowers of Centory the less, tansie, St. Johns wort, each two drams; of the flowers of Wormwood, Savine, Peaches, of each one dram and an half; of the Roots of white dittander, gentian, asarabacca, of each one dram; of red Corals prepared, burnt harts horn prepared, of each two scruples; Seeds of Artichoke, Purslane, citron, cummin, Seseli, Coleworts, Coriander prepared, Sorrel, of each half a dram; Choice Rhubarbe one dram; Myrrh, Saffron, of each half a dram; Scammony prepared, Trochiskes of Alhandal, of each two scruples; Salt of Wormwood half a scruple, Coralline half an ounce*: Of which you may give from one scruple to one dram in Cows Milk upon an empty Stomach two hours before meat. *Outwardly* is commended the cerote compounded of *Myrrh, Saffron, Liver colord Aloes*, of each as much as is sufficient, with Rose Vineger and an Oxe Gal, and applied both to the Mouth of the Stomach, and to the back; see more amongst Authors. II. *By things that drive them forth*, which are, *melted butter*, great quantity of *Oyl, a Bath of sweet Milk fuming hot*, if the Worms be yet alive *Diaturbith with Rhubarb, Ruffus* Pils, and *de Tribus Solutivis* if they be dead.

The *Difference* is taken from their figure.

I. Some are *smooth* or round, in which the knawing of the Belly is more vehement, a dry cough more frequent, the hickops, nauseousness, loathing of meat, faintings of the heart, troubled dreams with trembling, rising up, crying out, motion of the Jaws, &c. Clysters are not convenient for these, unless they be dead.

II. Others are *broad*, in which the Excrements are not unlike to gourd Seeds, there is an insatiable desire of meat, and a quick casting forth of the Body of that which is taken, a greater leanness and wasting of the Body, a pain sometimes in the right side, sometimes in the left. *Fearn*, or its water is good against them, *Walnuts, Treacle*, with Vinegar or the Juyce

of

of Lemons. Concerning the *broad worm*, see *Tulpius* in his observations.

III. Others are called *Ascarides*, in which there is a continual pain, a most troublesome itching about the Fundament, as if it were ful of Aunts, with a heavinesse in the back, continual Motions to stool, moth-like worms are every where mixt with the Excrements of the Belly, which smel very strong, &c.

Article, IV. *Of the Rupture of the Guts.*

A Rupture of the Guts, is a falling down of the Guts out of their place.

'Tis called by the Greeks *Kele*, by the Latines otherwise, *Ramix* and *Ruptura*.

The SIGNS are a Tumor which somtimes encreaseth, somtimes decreaseth, according as a greater part of it it fals down, or is filled with wind or Excrement, there is no pain, unless by chance the Excrements be fallen thither. The Patient being prest down or laid on his back the guts slide back into the belly, and that with a murmur, &c.

The CAUSES are those things which can Relax or break the proces derived from the Peritonæum, as shal be said in the Differences.

The CURE is not *to be neglected*, both because that thin and Nervous Membrane cannot easily be united, and because somtimes the Patient his Guts being inflamed is brought into danger of his life, and the Guts inflamed do mortefie. *It respects*, 1. *The Replacing of the Guts*, which if *they be swelled with wind*, as the rumbling in the Guts and breaking of wind do declare, it must be done by discussives: if they swel with *Excrements hardned*, then both with Emollient Clysters and Cataplasmes and Fomentations. If *with Flegmatick matter* it must by little and little be emptyed by Clysters and suppositories, and be attenuated by internal incisive means: if there availe nothing, we must flie *to Chirurgery* (concerning which consult with Authors.) 2. *The retaining of them in their place*; here are proper, *Horse Tongue*, which is most excellent, the pouder of *Mouse-Eare* given with meats, *Through wax*, *Rupture wort*. *The Ashes of a sucking hare* given to drink in red Wine. *The Seed of Flix weed*, *the plant fern* pouderd and given, each half a dram,

The *Differences* are taken from the Causes and places into which they fal.

I. One is from *a Rupture of the Peritonæum*, which *is known* by this, that a Tumor is suddainly raised, and also is quickly increased; the Gut fals down to the very bottome. *It ariseth* from violent Causes, fals, straining to cast forth the Child, or the Excrements of the Belly, holding of the breath, straining of the voice, wounds of the Peritonæum, &c. In *the Cure* a Ligature being applied, shal be given inwardly one spoonful *of the essence of the greater comfrey*, with two drops of *the balsome of Sal Gemmæ*. *Outwardly* must be applyed *Villanovanus* his Plaister of a *Rams* Skin. *Mynsichtus* Armam. p. 364. And the same Authors *Unguent against a Rupture*. p. 352. *The fat of a Hedg-Hog*, concerning which see *Hartman*. If these do no good, seek for help from Chirurgery, (of which see *Platerus*)

Another is from *the Relaxation of the Peritonæum*, which *is known* by this, that the Tumor grows by little and little, and the Gut doth not descend to the very bottome. *It ariseth* both from the moisture of the Peritonæum, whence Children often fal into a rupture: and from those things which breake it, if by degrees and often they assaile the Peritonæum, though not so violently.

II. There is another called *Oskeocele*, when the Guts descend into the very Cod, 'tis known by seeing. Another *Bubonocele*, when they fal down no lower than the groin: This somtimes doth very much distend the Skin, and is stretched out under it, and Causeth a great Tumor. *Both of them* is either *Enterocele*, when the Ileon Gut cheifly fal down, or *Epiplocele*, when some part of the Cal. See *Geigerus* in his Kelegraphy. Hither belongs *Exomphalos* or *Omphalocele*; when the Navel either Relaxt or broke struts forth somtimes the bigness of a nut, somtimes of an Apple; nay somtimes there is a Tumor raised like a Bag. If it be *lately*, first of al foment it with a Decoction *of tree Mosse*, *self Heal*, made in astringent Wine; afterwards lay *a Cataplasme* of Plantane and Lentils. If it *be Old*, after the like Fomentations, tis Cured with the Oyntment *of Mushrums*, *of Nuts* outwardly applied with convenient ligature, inwardly with the essence of *the greater comfrey* with *the Arcanum of Sal Gemmæ*.

Article,

Article, V. *Of the falling down of the Fundament, and of the wounds and Ulcers of the Guts.*

I. *The falling down of the Fundament, is a hanging forth of the outer part of the right Gut.*

There is no need of SIGNS. The CAUSES shall be spoke of in the Differences.

The CURE requireth. I. *A putting up of the Fundament fallen down,* which is performed gently with the Hand, premising a Fomentation of emollient and moistning things if it be swelled. II. *The retaining of it being reduced to its place,* either by astringent Decoctions, or by pouders, of Frankincense, mastick, &c. *Inwardly* is comended the Decoction *of the Root of wild self-heal* being drunk. *Outwardly* the Ashes *of beetles,* of sheeps dung strowed upon the Gut.

The *Differences* are taken from the Causes. 1. Either it is *from great straining,* which is *Either* in forcing out the Excrements, and then the Belly must be kept loose, *or* in labour. 2. Or it is *from a great irritation,* which afflicts *either* in a dysentery or tenesmus, against which the Cure must be directed; *or* from the weakness of the Muscles, which are wont to draw back the Fundament thrust forth, after the emptying of the Belly; *or* by reason of the often falling down of the Fundament, *or* by reason of some cold, and then the Nerves must be strengthned and the cold distemper be corrected. 3. Or *from a Resolution either* by reason of a contusion of the Nerves about the Region of the *Os Sacrum* or Rump bone, where things consolidating take place: *or* by reason of some Extraordinary refrigeration of them, of which we spake even now: *or* by reason of some impostumation or fistula arising about the sphincter Muscles.

II. *The wounds of the Guts* (I pass by the Perforations made by worms, wind, &c.) are either of *the smal Guts,* in which the meat and drink comes forth, Choler is cast up by vomiting, there are great pains with a Feaver, and these because the Guts have a Nervous Coat, and ful of many Vessels, are by no means or very difficulsly Cured. Or *of the great Guts,* in which the Excrement comes forth, the body is bound, the which if they be long waies, and smal, they are the easier Cured; if they be large and Crosse the Guts, the harder no; waies Cured if they become blackish. See their *cure* in Practitioners.

III. Concerning *Ulcers* we shal treat in a dysentery. *Mortification* is wont somtimes to follow a Rupture, the Iliack Passion, and an Inflamation: it happens also in wounds if the Guts falling out of the Belly, be alterd by the Aire, and become blackish.

Chap. 2. *Of the Symptomes of the Guts.*

Article, I. *Of the Iliack Passion.*

The Symptomes of the Guts are, *The Iliack Passion, the Collick, costiveness of Body, and a lask.*

The Iliack passion is a sharp pain in the smal Guts, arising from a violent solution of continuity, with a Tumor of the belly rowled up like a bundle of strings, and so great an obstruction of the Belly, that nothing goes downward, but the Humors and Excrements are somtimes violently cast up by vomiting.

The part affected is the Ileon Gut, and the other smal Guts, for though somtimes the great Guts also may be affected; yet there is no such vehemency and danger in them, because they are looser and more ignoble.

The SIGNS are, a sence of paine in the upper guts, rouled up above the navel, most sharp, extending it selfe upwards cheifly to the right side, a puffing up and vehement distension, an eminent swelling of the upper part of the belly and smal guts, a perfect restraint of dung and winde, vaine belchings bringing no ease, murmurings of the smal guts, and cheifly of the upper; if the evil doe increase, al things are carried upwards. Hence follow vomitings, swellings under the ears, a coldness of the extream parts and whole body, with a great difficulty of breathing and stoppage of urine, &c.

The conjunct cause is a violent solution of continuity, proceeding from obstruction, corrosion, and other things (of which shal be treated in the differences) for then the expulsive faculty of the guts, rising up to expel that which is troublesome to them, and whenas it cannot move its natural way downwards, because the passages leading to the fundament are possest with a strong obstruction; or because the part

pained or inflamed cannot bear the weight or acrimony of the humors or excrements, by a converted and periſtattick motion, contracting the fibres of the guts it thruſts upwards firſt of al, things hurtful, afterwards by the violence of the motion, al things contained in the guts.

The *Cure is more hopeful* if the guts be affected but in part, if it befal children, becauſe they have a ſtrong innate heat, and humors leſs ſharp and biting. *'Tis doubtful* if it afflict old people, if a ſtrangury ſucceed, unleſs a feaver happening and diſſolving the matter, plenty of urine flow forth; If the hickops, or vomiting, or convulſion, or dotage ſucceed. *Of little hopes*, if upon vomiting up of the excrements either deafneſs or an acute feaver, or with the ſame an elevated hypochondry, ſwellings under the ears do follow. It *Reſpects*. 1. *The cauſes*, of which in the differences. 2. The *Pain* which muſt be mitigated by things emollient and anodyne. *The Blood of a bat* anointed on the hypochondries is confirmed to be of force by wonderful experience.

The Differences are taken from the cauſes.

I. One is *from external things*, as from the ayr, either too hot and drying, or cold binding up the paſſages, from deadly medicines and poiſons, from the uſe of peaſe, ſervices, quinces, medlars, &c. then the buſineſs muſt be done by vomiting.

Another is from *internal things*, of which in the following Difference.

II. One is *from diſeaſes of the neighboring bowels* which wil appeare by their proper ſigns. *'2. From a rupture*, of which we ſpake formerly. 3. *From an inflamation*, which is common, and cheifly happens in the autumn, which forces to the center the thin and movable humors that were bred in the ſummer, *'tis* known and cured as was ſaid formerly. 4. *from an ulcer and other tumors*, to wit, a ſchirrus with a continual hardneſs, and a cancer, which are ſcarce curable. *They reſide* either in the *inward parts*, and then the tumor it ſelfe is viſible.

Another is from *the obſtruction of humors*, which are. 1. *Excrements hardened*, and in this al things are more milde, a long continued obſtruction of the belly went before it; the cure is ordered by things mollifying, and fat things inwardly and outwardly applied: a ſuffumigation of a calves Cal and guts boyled in broth is commended; inwardly *cream or tartar* given one dram and an half weight in broth. 2. *Humors* either thick and viſcous, or ſharp and biting, which if poſſible are to be caſt forth.

Another is from *wind*, in which gliſters of ſulfurious and ſalt things are commended.

Article. II. *Of the Chollick.*

The Collick is a pain of the Collick gut, ariſing from things that doth diſſolve its continuity.

The *Signs* are a piercing and boring ſenſe of paine in the great guts, eſpecially in the left groine, where the collick gut is narrower, carried moſt of al from the navel downwards, a puffing up and diſtenſion of the lower part of the belly, a ſuppreſſion of excrements and winde, a nauſeouſneſs, belching, vomiting, difficulty of urine, al which wil become more certain by the remembrance of things going before, and the demonſtration of things conſequent. *'Tis diſtinguiſhed from the paine of the ſtone in the kidnies* becauſe it pricks more, poſſeſſes a greater ſpace, is increaſed after meat by reaſon of the compreſſion of the ſtomach, it doth leſs afflict the back and the thighes, *'tis* wandering, and there appeares no Gravil in the urine. *From that of the womb*, becauſe this ſeizeth for the moſt part upon the ſtoppage of the courſes, is communicated only to the hipps and Groins.

The cure muſt be haſtened, becauſe the pain diſſolves the ſtrength and ſpirits, and draws the principal parts into conſent. *There is little hope* if they vomit often, and cannot keep their drink, and little or nothing is voided: if it be changed into an impoſtumation of the Collick gut. If the matter which was contained in the hypochondries be poured forth and carried to the ſpina and paſs into pains of the back, and by a malignity contracted doe produce a falling ſickneſs. *'Tis performed.* 1. *By taking away of the Cauſes* (of which we ſhal treat in the defference) 2. *By mittigating of the paine* if it be too vehement, where *note* that we act moſt commodiouſly with anodine gliſters, the frequent uſe *of outward applications* may be, if ſome evacuation have preceded that *narcoticks* or ſtupefying means muſt not be uſed, neither where the ſtrength is dejected, nor in a cold cauſe. That *Compounds* are more ſafely uſed than ſimples, and that the ſame are more ſecurely caſt up into the belly, than taken by the mouth. That

we never be unmindful *of things appropriate*, as are the *guts of a wolfe* dryed and poudered, *the stones of a horse*, *Quercetans powder* compounded of the inward coate of a hens mawe, and the white dunge of the same each half an ounce, the pouder of the inward skin which is found in egg-shels, two drams and an half; of rupture wort, cinnamon, each four scruples; of medlar kernels two drams; of anis and fennel seeds each one dram: the dose is from half a dram to a dram at the most with white wine, &c. *Crato* prescribes *for preservation*. 1. *A glister* made of one pound of the decoction of speedwel in hen broth, adding half a pound of mallego wine, and half a dram of mirrh. 2. Outwardly, oyl of mirrh. 3. Three hours after supper one scruple *of Zedoary* sliced. 4. Every month in the morning before meat one scruple of *treacle*. See more in Practitioners.

The differences are taken either from the part it self, or from the causes.

I. One is *of the whol gut*, in which the pain is about both the loyns, and below the region of the stomach neer to the navel, which is very dangerous. Another is *of part of the Gut*, in which if *the beginning of it* be oppreſt the pain afflicts in the right loyn. *If the middle of it*, the paine shows it self in the left. *If the end of it*, the region of the navel next to the left is pained. There is less danger ariseth because glysters may have access; but note, that sometimes the loyn is affected with a pain above the navel in the hypochondries.

II. Another is from *diseases*, as, 1. *Worms*, whose signs and cure see in its place, 2. An *inflamation of the Guts*, which was formerly described, and is increased by meats and drinks that are hot. 3. *From Stones*; of the cure of which elsewhere.

Another is *from humors*, I. *Thick and viscous* sticking between the coats of the gutts, which *is known* by this, that the pain is, as if a stake were driven through them, by reason of the violent distension of the coats in that place; neither is it asswaged by belching or breaking of wind, and the gut it selfe is corroded, which proceeds from glassy flame. *They arise* cheifly in them who are given to drunkenness and idleness, and in whom choler, which is the spurre of the expulsive faculty, flows not to those places. In the *Cure* observe. 1. That strong glisters cast in at first and often repeated do more hurt than good, because they stirre the matter but bring it not forth, 2. That we use not for attenuation things eminently hot, lest the matter being suddainly resolved, wind be multiplyed. 3. To attenuate and discuss, the *oyle of Zedoary* often given from three grains to one scruple is good. *White whorebound*, *the decoction of Speedwel*, the Oyl of *Orange pills* given four grains with wine, 4. If the paine continue, we must proceed to dry fomentations, by which that which was melted and attenuated, may be dryed up and discussed. 5. We must abstaine from *Agrick* for feare of vomiting, which at that time is in no wise safe. 6. Where gentle purgers do not good, *the essence of the trochisks of alhandal* extracted with distilled mallegoe sack, and *Rulandus* his *golden spirit of life*, must be given from half an ounce to an ounce & half at the most. 7. we must wholy abstaine from *opiates*. II. From *sharp and cholerick humors* sticking in the coats and vessels, which *are known* by the accute pain, thirst, bitterness of the mouth, watchings; though by the first glister some excrements be brought forth, yet afterwards nothing almost is emptied. There are oftentimes joined with it certain Feavers, double tertians, bastard tertians. In the *Cure* note, 1. That the collick from those causes is of long continuance, and is wont to afflict the patient with many relapses. 2. That those humors transmitted to the joints do cause an arthritis, to the back, pains of the back, to the nerves, a palsey. 3. That they are best of al cast forth with the *extract of Rhubarb*, or *Hiera picra* mixt with cooling things lest they offend by their heat. 4. If the pains continue after evacuation, *Mallego wine* may wel be administred with oyle of sweet almonds, 5. That warme milk may also be given in glysters with honey of mercury, 6. In dyet, *the fruit of the guord* by a certain natural propiety doth oppose the disease.

III. Another is *from the retention of hard excrements*, of which formerly, and in which we must at the beginning abstaine from giveing any purging medicines by the upward parts lest they move the excrements.

Another is *from wind conteined in the cavity* which cannot get passage, which *is known* by the distension of the belly, a rumbling, murmuring, which shew themselves in the bowing of the left side. *It ariseth* cheifly from meats apt to produce a fermentation of the humors, as are corruptible fruits, Grapes, new wine, new and thick drink, &c. In the *Cure* observe, 1. That the cure must be begun with anodyne and emollient glysters. 2. If these profit not, Some laxative must be given in fat broth, of manna, Oyl of sweet almonds, and

other things. 3. Afterwards we must use discussives. Inwardly are commended a *glister* made of Mallego wine and oyl of Nuts, each three ounces; aqua vitæ one ounce; the distilled oyles of Juniper and Rue, each two drams: apply it very hot. A mixture *of Spirits of wine and Spirits of niter*, each half a dram or two scrupels given in common water warme. One spoonful of the tincture *of orange peels* extracted with spirits of wine. *Sperma ceti* with oyl of sweet almonds. *Outwardly* gum *tacamahac and Caranna* applyed to the Navel. The *antiapoplectical* balsome with one or two grains of *Zivet* &c.

IV. One is *exquisite*, of which we have hitherto spoken.

Another *Spurious*, whose cause sticks either in the peritoneum, or in the membranes which are spred over the abdomen and parts of the belly. *'Tis known* by this, that the paine is most greivous, and very lasting, and cannot be mitigated neither by glysters nor medicines, nor fomentations, nor by those remedies, by which the true collick pains are abated; and yet it succeeds to long continued feavers, and other cholerick diseases, whose solution is difficult. For nature endeavoring a crisis, and the expulsion of the hurtful humor by the stoole, when she can no where find a ready and cleare way to empty it, doth often cast it out of the veins and bowels into the membranes, whence do arise pains more grievous than the former disease. 'Tis observed *by Fernelius* that both continuall feavers, and tertians, and more frequently quartans are terminated with these pains, which a long time had their exacerbations at certaine circuits, and retained the like order of fits. See concerning *this Matheus Martinus* on the diseases of the Mesentery.

V. Another is *which tends to a particular palsey*, which *Palmarius* was wont to cure with a syrup compounded of white wine six ounces; Rose water two ounces; pouder of Alarbazi or antimony prepared one dram; choice cinnamon one dram and an half; infused all night & strained by gentle pouring it off adding of Sugar eight ounces. The dose is from half an ounce to an ounce, after a draft of chicken broath.

Article, 3. *Of Costiveness of body.*

Costiveness of body is no casting forth of excrements, or very little in proportion to the nourishment received.

There is no need *of signs. The causes* shal be explained in the differences. The cure is not *to be neglected*: for from thence the head is assaulted with vapors, the whole body grows heavy, the concoction of the stomach is hindred, the appetite destroyed, the loines grow weak (to wit the veines being burthend, and a preternatural heat caused in them.) Sometimes the belly *is moved* by sneezing and coughing, sometimes if the diseased walk on the ground bare footed, &c.

The difference is taken from the excrements and guts.

I. One *is by default of the excrements*, which either *are not* by reason of fasting, and the use of meats of good juice. Or *do not stimulate*, either *by reason* they are small in quantity, or *by reason* of the want of choler, which either is carried to other parts as in the jaundice or is not produced out of cold meats. Or *they are hard*, either by fasting and a hot habit of body, or by a continued restraint there, by which it comes to pass, that they forthwith grow dry, and the veins of the mesentery do suck forth somwhat of their juice. Or *by reason* of gross, tough, astringent meat eaten at first, and not moistned by reason of the too great heat of the liver and kidnies; and then there must be care taken of those parts; we must act by mollesyers. *Solenanders liniment* is approved of, if the navil be anointed therewith, 'tis compounded of new oyle, of sweet almonds, goose grease, May butter, dialthea, each two drams; Coloquintida sixteen grains, Salt one scruple and half; the pouder of Simple hiera one scruple diagridium four grains.

II. Another is *by fault of the guts*, which either *do not feel*, either *by reason* of their long custom, or by their stupidity, such as is caused by the drowsy disease, palsy, apoplexy; *or* by reason of flegme adhering to their coats; of which in the chollick. Or *do not cast it forth*, either *by reason* of the narrowness of the passages from the obstruction of the guts, of which formerly; or of some tumor of the mesentery or bowels pressing the guts; or from the fault of the muscles of the belly; or from the strength of the retentive faculty from the moderate dryness.

Article. 4. *Of a Looseness.*

Point. 1. *Of a Lientery, and Cœliaca.*

Fluxes of the belly are, *A Lientery, Cœliaca, Diarrhy, Dysentery, and Hepatick flux. A Lientery is too sudden a voiding by the stool, the nourishment in that forme in which it was received, proceeding from the fault of the retentive and expulsive faculty of the stomach and guts.*

The SIGNES are evident, whether you consider the consistence, or the colour, smel, and other qualities of the aliments taken.

The CAUSE we have laid in the definition on the faults of the retentive and expulsive faculty; of which hereafter in the differences.

The CURE *must be hastened,* because this symptome proceeds from a great prostration of the natural heat, and a weakness of the tone of the stomach. *'Tis difficult* if it be supervenient to acute and chronical diseases, because the strength is impaired. *It respects,* 1. The *cause,* which must be taken away. 2. *The symptome,* which must be stayed by astringent means and things that stregthen the stomach and guts.

The Diffence is taken from the causes.

One is *by default of the retentive faculty* which is hurt, 1. *By the refrigeration of the guts,* which is caused. I. *By immoderate drinking of cold water,* especially when the body is hot, by a southerne wind over moist and excessive cold, especially in bodies of a fine texture, &c. 2. *A cold distemper,* which ariseth from flegm either generated there, or sent from some other part covering over the wrinkles of the guts, doth make them laxe and slippery, duls their heat, and closeth up the mouths of the mesaraick veins. In this for the most part a Celiaca was precedent. If sour belching which was not before, be supervenient to this of long continuance, it is a good signe. *The Cure* requires a casting forth of the matter either by vomit or stoole, to which end serve, *Myrobalans Chebul. Citrini tamarinds, Rhubarb.* A restraint of the same and strengthening of the stomach by *the distilled oyles of masticke, wormwood, mint, &c.* order of dyet, in which wine takes place. II. *by a laxness* from the continuall use of things oyly, far, and emollient, from whence is too great a mollification of the Mouth of the stomach, whether also belongs the resolution of the nerve of the sixth payre that contracts the fibres of the inward coat. III. *By a strange quality inured,* and that *either* from an evil constitution of the aire, as happens in a popular lientery, or from the unseasonable eating of mushrums, melons, cowcumbers &c. IV. *By a thick and smooth scar,* such as is wont to follow a great disentery, and a deep ulceration, which by its thickness stopping the Mesaraicks, hinders the distribution, by its smoothness the Retention. This must be rubbed off, and wiped away as it were by eating of sharp things, attenuating and strong abstersives, *as musterd Seed, Onions, Garlicks, honey of Roses, Oxymel of Squils,* with a Mixture of things a little astringent.

Another is *by default of the Expulsive Faculty,* which is provoked, 1. *By an ulcerous Disposition,* residing in the Superficies of the Guts and Stomach like pustles. *'Tis known* from hence, that there was no Cœliaca going before, and there is a sense of knawing and pain in the stomach. *In the cure* if *the Stomach* be in fault, eschew vomits, let the Belly be loosned with lenitives, having some astriction, avoid Fat things. If *the Guts* be affected, vomiting is good. 2. By sharp *humors,* whether generated there, or falling from some other part, especially the Liver. *It is known,* as the former disposition. *The cure is hard* if it be of long continuance, because it passeth into a dysentery: if it be with difficulty of breathing; and a pricking in the side, and the humor fal down from the brain, so that part of it fall upon the breast, because it ends in a consumption. If it be long with gripings, wormes, and paines, because these being over it hath a swelling followes. The sharpness is abated with the decoction of barley, succory & other cooling things: if it continue long, rhubarb prepared in rose water is effectual. 3. *From the taking of poyson,* and then things alexipharmacal must be mixed, *the juice of dittander* with syrup of pomegranates, is commended.

II. *A Cœliaca is a suddaine passing of drink and meats out of the stomach into the guts, in which they flow forth like unto chyle, or a milky substance.*

The Signs are evident. This passage is compleated within six or eight hours after meat, so that the thinner and subtler parts of the nourishment are alterd and concocted, and so pass into the nourishment of the body, yet the body because it is not sufficiently nourisht, wasteth

eth a way. The pulse is frequent, and heat afflicts as if there were a feaver; when they are going to stool some light faintings seize on them. Before it breake forth the belly is distended and struts out.

The CAUSE of it is cheifly *the il distribution of the chyle*, which is bred by the obstruction either of *the mesentery, spleen, or liver*, and *then* the chyle is voided white, the obstructions must be opened. Or *the weakness of the attractive faculty in the liver*, and *then* the chyle is somwhac dyed with a little reddish colour; the liver must be strengthened. Or the immoderate *Quantity* or corruptible *nourishments* and drinke; for hence there is much filth heaped up in process of time; being increased in those parts tis corrupted, and by its quantity or quality provokes the expulsive faculty.

The CURE Respects the Causes, as we have said, al the superfluous humor being emptied the flux stayes of it self, somtimes on the same day it began, sometimes on the next.

Point. 2. *Of the Diarrhy.*

A Diarrhy is an immoderate, frequent, and continual going to stoole, in which excrementitious and sincere humors, by their quantity or quallity stiring up the expulsive facculty of the stomach and guts, do flow forth without an inflamation, lientery, exulceration, Tenesmus, or vehement sence of paine.

There is no need to touch upon the *Signes*, for they are explaned in the definition.

The *Cause* is al that which doth preternaturally irritate and encrease the expulsive faculty of the stomach and guts: on the contrary doth debilitate and destroy the retentive, whether it be done by it self, or by consent.

The *Cure* is *difficult* if it befal a great bellied woman, because it withdraws the nourishment from the child, by moving, relaxes the ligaments and by raising up of filthy vapors causeth abortion. *'Tis easier* if vomiting succeed, because there is a revulsion of the matter from the lower parts to the upper. If it happen after an ophthalmy, because the matter is revelled from the upper parts to the lower. If it be supervenient to one sicke of a dropsie, though it be violent, at the begining of the disease, in ful strength and the bowels sound, because there is an evacuation made of the matter causing the disease from the whole habit of the body by the stool. *It must not presantly be attempted* if such matter be purged as ought to be, if it do good, and they beare it easily, if there be no feaver. For oftentimes to have a flux for one day or more is healthful, if it stop within seven dayes, if it be presumed from the circumstances to be critical. *'Tis accomplished.* 1. *By Emptying of the matter* it selfe, *By rhubarb* in substance, *mechoacan, tamarinds, myrobalanes*, and syrup *of roses solutive.* 2. *By revulsion*, which is done by bleeding, vomiting, frictions, ligatures, urine, sweats. 3. *By the use of astringents*, of which if we consider the simples the cheife are, *tormentil roots, Plantane, avens, sloes.* The leaves of *plantan, loosestrife. shepherds pouch.* The seeds of *Purslane*, of *cresses torrified.* The flowers *of roses, pomegranates.* Woods, *red Saunders.* Spices, *Nutmegs.* Minerals, *terra sigilata, bole armiconicke, Chrystal, &c.* If the compounds, they are, Tragæa of *Elder berries*, Quercetan in his pharmacopœa, c. 21. *the bones of a man calcined, terra dulcis vitrioli, crocus martis, burnt hartshorn, new treacle, old conserve of roses, diascordium, sperniolæ compositum*, and if the flux be too vehement, *Philonium Romanum, and laudanum opiate.* 4. *The diet*, in which *steele* water takes place; an immulsion of *sweet almonds* in tormentil water, or the decoction of *Oake leaves*, the pouder of diatragacanthum in reer eggs, &c.

The *Differences* of a Diarrhy are Various.

I. One is from *things external*, as *purging* medicines causing a super-purgation, which is stopped with the *root of dropwort* given in wine, by steeled milk given by glyster, by *laudanum opiate.* From *poysons*, against which alexipharmaca must be opposed, especially some graines of an emrald præpared in a convenient water. Another is from *things internal*, of which hereafter.

II. One is from the *whol Body*, which is *either* with a Feaver, *or* without a Feaver, as shal be said in the following Difference. Another is from *some part*, which see in the fifth Difference.

III. One is *with a Feaver*; the matter causing the Flux being transmitted from the whol Body, which *is known* by this, that things very crude, moist and watry, are cast forth with a noise, either often and little at a time, or much and altogether, and there are present the Signs of a Feaver. *'Tis hardly Cured*, if in a disease of long continuance with lothing of

meat

meat, ſtools be ſincere, that is, ſuch as have no watery moiſture mixt with them becauſe they ſhew a burning up of the native moiſture by a weak heat: if they be voided with often noiſe, and too much, becauſe that argues a crude ſtoole from vitious humors, this becauſe the often labor of going to ſtool cauſeth deliriums, and theſe have danger of fainting depending on them: If the ſtooles be thick, white, green, yellowiſh, frothy, becauſe they demonſtrate crudities, a diſturbed flux, plenty of yellow choler in the guts, a mixture of a windy ſpirit with the humor. *Sometimes by no meanes* if the ſtooles be black, fat, lived, like the ruſt of braſs and ſtinking. *The cure* is undertaken by the ſame means as before, having reſpect unto the Feaver. *It is divided* twofold. 1. Either it is *Critical*, which is to be ſtayed and promoted; or, *Symptomatical for a time*, which nature ſtimulated by the quantity or quality of the matter, doth order before concoction, but with ſtrength of its faculty, which is neither to be ſtopped nor promoted, nor ſometimes to be left to nature, but the matter to be emptyed muſt be revelled, altered. Or *plainly Symptomatical*, which is from the irritation of the cauſe of the diſeaſe, nature being unwilling as it were, which muſt be oppoſed by the remedies before rehearſed. 2. Or it is *colliquative*, or not, of which ſee the following difference.

Another is *without a feaver*, which *is known* by this, that the humor is ſeldom voided under its proper forme, but changed, and that 'tis ſignifyed by no ſigns that it doth proceed from the too much heaping in of corrupt meats, or other cauſes; there are no ſigns preſent of any particular part affected. It *is cauſed ſometimes* when ſerous humors the cauſe of a dropſy are voided by the ſtoole, or when in ſound men, whoſe veins abound with very much ſerum, the night or morning cold of the autum peircing deep into their bodies doth repel the ſerous humors from the outward veſſels towards the inward, & into the greater paſſages of the vena Cava, which at laſt being carried to the bowels, and to the creeping branches of the meſentery, flow into the cavity of the gutts. Concerniug the cure, note, That medicines are beſt given in *a ſolid form*; That Oyle muſt not be mixed with *vomiters*; that we muſt act with things incraſſating and abſterſive together; that the Seroſities are beſt of all diſperſed *by ſweaters*.

IV. Another is *colliquative*, which otherwiſe is called a colliquative flux, which *is known* by this, that the excrements are for the moſt part endewed with divers colors, commonly very ſtinking, Sometimes fat and viſcous, that there is a feaver preſent, either burning or malignant, or hectick, the body ſuddainly is waſted beyond meaſure, &c. It happens in burning feavers, a hectick, ptiſick, inflamations, in which by the great heat, not only the humors in the veins, but the next aliment of the parts is melted, and if it be thinner it is diſſipated, if thicker it flows to the belly. *The cure* is for the moſt part in vain, eſpecially in hectick bodies and ptiſical, whoſe haire falls off: we muſt act with coolers, moiſtners, and ſomewhat aſtringent, which are not ſo much to be applyed outwardly as inwardly, leaſt the flowing forth of the preternatural heat be hindered.

Another is *not colliquative*, of which in the third difference.

V. Another is *from the guts* when the matter cauſing the diarrhy reſides in them, and then *the cauſes are*, 1. Sometimes *Worms*, whoſe ſigns wil be ready, and they muſt be driven away with their proper remedies. 2. *The obſtruction of the meſaraick veins* that they attract not the chyle, which being collected there, doth by its plenty ſtimulate the guts; and *then* the chyle is voided white; a conſumption followeth if the fluxe laſt long we muſt act cheifly with openers, and truly with ſuch, which alſo are good for the liver, and do not provoke to ſtool.

Another *from the brain*, which ſends an inſipid or ſalt flegm into the Guts, cheifly in the night, the patient ſleeping on his back, which either makes the coat of the ſtomach and guts ſlippery, or mixed with the meat weakens the concoction. *'Tis known* by this, that there are preſent the ſigns of an infirme brain, and 'tis moſt familliar with ſtutterers, by reaſon of their moiſture. *In the cure*, *Gargariſms* and maſticatories muſt be avoided, leaſt the matter of the catarrh be drawn into the ſtomach. *Veſicatories* may be applyed to the firſt and ſecond vertebra of the neck.

Another from *the ſtomach*, which *is known* by the ſigns of the ſtomach affected. It *ariſeth* either *from corrupt meats*, either of themſelves *then* becauſe nature is very much irritated, the other humors in the body are ſtirred up, an evil diſpoſition is brought into the ſtomach, and this diarrhy is dangerous; or from the manner of taking them, and *then* there is leſs danger. Or from *excrementitious humors* heaped there by reaſon of depraved concoction; which ſometimes alſo are ſent from elſewhere, by reaſon of

their

their evilness are not attracted by the liver, and do stir up the expulsive faculty to excretion.

The Cure hath nothing Singular.

Another is *from the Liver* which *is obstructed* either in the hollow part, where we must act with openers; or in the Gibbous part, and then diureticks do good. Or *abounds too much with Choler*, and then there wil be the signs of a distempered Liver. In *the Cure* is commended for its astriction; *Old Cheese* broken smal, washt with some cooling and astringent water, and fryed in a Pan. The Diureticks must not be sharp.

Another from *the Spleen*, which Casts off a Melancholly Humor collected there, or derived from some other part, so that the stool is somtimes black as Pitch, by reason of blood from some vessel opened in the hypochondries and poured into the Guts, and there burnt to a blackness, and *then* there are signs of the Spleen affected. Blood falling out of the Vessels and concreting, if it be stopped, causeth swounings and other greivous evils. Somtimes the Scurvy concurs. Least the biting Humor exulcerate the Guts, detersive and tempering Clysters ought often to be cast in.

Another from *the womb*, when the Humors and Courses being stopt are carried to the Liver, from thence to the Guts. *Then* somtimes periods of time are observed; in the Cure regard must be had to the Courses.

Point, III. *Of a Dysentery.*

A Dysentery is a frequent, bloody, and Purulent going to stool, with a Pain in the Belly, and Exulceration of the Guts, from a sharp corroding matter peculiarly offensive to the Guts.

The *Name* of Dysentery is attributed also to a diarrhy, in which the Humors which are voided do Cause torments, although there be no Exulceration: and with this if blood somtimes be voided, that comes rather from an opening of the Vessels, than an Exulceration of the Guts.

The SIGNS are an often going to stool, because the Guts are stimulated by the acrimony of the Humor; somtimes continually if the matter be sufficient, somtimes it returns periodically every third day. The pain and torments of the Belly are especially at going to stool, and a little before the excretion. Those things that are voided are, somtimes Cholerick, and of divers kinds, somtimes mucous and bloody, somtimes wholly different from the natural kind of excrements. A Feaver somtimes ariseth presently at the begining, somtimes when the Disease hath lasted for some daies, by reason of restlessness and putrefaction. See the difference from *an Hepatick flux* in the Chapter of that; It differs *from an impostumation*, at whose breaking there follow eliquations as it were of matter, because in that a beating pain doth precede neer the affected place, and there is neither biting nor loosenes, &c.

The CAUSES are sharp Humors corroding the Guts, and peculiarly offensive to them, conteining I know not what Antimonial, Helleborine, or somwhat like unto the Sea Lungs, offensive to the Lungs, and like to Cantharides inimicous to the bladder. These infected by a Dysenterical Contagion, peircing into the Veins and arteries do cause a Fermentation and imprint a disposition like unto it self, by a stain on the whol mass of blood, and stir it up with the other Humors as purgers do: they fix also an evil disposition on the Guts, so that the chyle passing by is changed into a vitious Humor, and the Excrements of the Belly receive not a natural Elaboration and quality. Somtimes in human bodies they are rendred such by the occult influences of the stars; hence sucking children, who never came into the open aire, and were only nourisht with their Mothers Milk, are somtimes taken with a Dysentery. But *they have their Original* from *Waters* carried through Leaden and Old condites; from the spring *Aire*, rainy and southerly after a dry and northerly winter, both by reason that the drying up of the Humors is hindred, and by the strong putrefying power in moisture: from a hot and dry Aire, thence at the begining of the autum, and end of the Summer this Disease is raised, and Reigns chiefly in the hottest Countries. From evil and unaccustomary *Meats*, hence in *Ægypt* and *India* 'tis common because they feed on the flesh of beasts which are nourisht by *Cassia Fistula*. From autum, *Fruits*, both because they easily putrefie, and because by their astriction they retaine those which are putrefied. The use of Grapes and new Wine, because they make a Fermentation, and are easily tainted with foulness, Blasting, dews.

The CURE is *Difficult* in women by reason of their tenderness and weakness; in Children by reason their Guts are moister, and therefore subject to Putrefaction; in Old People

people by reason of the greatness of the cause that is the acrimony of the humors in a body indisposed, and Feebleness of strength. *'Tis doubtful* if the stools be sincere, that is, mixt with no waterish moisture. If the effusion of pure blood be joyned with it, for it shews that the greater veins are corroded. If loathing of meat afflict with a feaver, because the stomach being drawn into consent, the concoction is weakened, & there is some ulcerous putrefaction in the guts. If cholerick vomitings seize at the begining, because it argues a great power of boyling choler which troubles the upper and lower belly. If the stools be continual, or that stopping a new dilute flux, bloody like to an hepatick flux; or a filty diarrhy do follow. If it invade with a feaver or with divers colored stools, or an inflamation of the liver. If it happen to a woman great with child, and bate not after the delivery of the child and voiding of the secundine. *Of some hopes*, if the excrements be changed, unless the change be to worse, if belching or farting succeed because it is a signe that nature doth begin to concoct. If it befal the splenitick, because the melancholly humors are carried away, where we must wel distinguish between the melancholy blood concrete in the guts, and black choller. If it follow madness, because it betokens that the matter is translated from the head to the lower parts. *Of little hopes*, if black choller be voided of its own accord, no feaver going before, nor good concoction appearing, because it differs nothing from an ulcerated cancer. If convulsions and ravings Succeed, because they shew the matter is carried to the head and nerves. If peices of flesh be voided, because the substance of the guts cannot be regenerated, nor a scarre be drawn over so great an exuleration. If any one releeved from an acute disease be taken with it, because his strength is not able to undergoe it. If in process of the disease the hickops follow, if a black pustle like to a vetch appear behind the left ear with a great thirst, because it signifies death on the twentieth day.

The Cure is accomplisht. 1. *By revulsion and derivation of the humors* tushing to the guts, where *Bleeding* takes place if there be plenty of blood: if it rush violently with the humors to the guts; if there be an inflamation, or if it be feared. If the Feaver be continual. If a hot liver minister matter. *Yet note* it must be emptyed by little and little, timely and at the first dayes, least the strength be dejected, the median or liver vaine must be opened with a smal orifice: the vein of the ancle if some accustomary evaccuation be stopt. 2. *By emptying the corroding humors*, so that the stronger be avoided, because they move the humors to the guts. Let the purging be at the begining, before there folow too great exulceration; and that very often that the humor may be taken away. The syrup made *of the infusion of damaske Roses* is commended, *Myrobalans*, *Tamarinds*, the infusion of *Rhubarb* first of al not torrefied, afterwards torrified if we would binde a little. *Mechoacan*, by whose frequent use the belly is dryed. The decoction of *myrobalans*, which see in *Sennertus*. 3. *By the abstersion of the same humors* by glysters made of barly, the yelks of egs, honey of roses, Sugar and other things, according as the exulceration is greater or less. 4. *By mitigation of the pain*, for which serve *cows milk*, so that the body be purged, and if there be a Feaver. Let it be mixt with plantane water; or let it be boyled with flints, with yelks of egs, and the mucilage of quince seeds and cast in by glister. *Mulein*, goats suit mixt with the same; a clyster described by *Sennertus of a weathers head*. 5. *By stopping of the flux*, by the medicines rehearsed in a diarrhy, to which ad *raw services*, if the flux be most desperate a *Nutmeg* rosted in the embers if there be no feaver; *the decoction of the clay of the furnace* in steeled milke, *new treacle* if there be no inflammation, the pouder of a *dogs-turd* fed three dayes with bones, drank with goats milke, *Laudanum opiate*: but these ought so to be administred, that sometimes hot, sometimes cold things be given. To cooling things let hot things be mixt that helpe concoction; al in a smal quantity least the flux be stopt suddenly, and let them be given often, because they stay not long in the guts. 6. By the use of *mundefiers and things that fil up the hollow ulcer*, &c. in which observe that when as the pain is exasperated by the use of detersivnes, the glyster being voided, another must be given made of milk. 7. *By the application of topicks*, concerning which, *note* that astringents are of force rather in lean bodies than in fat, when as in these they cannot penetrate. Things very cold, neither vertually nor actually must not be chosen: vinegar or thin white wine must be mixed with them. Cataplasmes are of no force in a dysentery from sharpe choller, when as they leave a biting quality behind them. 8. *By dyet*, in which biskit bread, milk of sweet almond, sthe flower of sugar, &c. take place.

The *Differences* of a Dysentery are Divers.

I. One is in *making*, when the exulceration begins onely in the superficies of the guts, and

there from them suffering *an inflamatory disposition*, their temper being destroyed.

Another *is already made*, when the corrosion peirces deeper, and either fibres and smal skins of the inward coat are voided with blood, or peices of the fleshy substance cut off from the proper substance of the guts are voided with membranous shavings and much blood and purulency, which is the utmost degree of malignity.

II Another is *of the smal guts*, in which the pain is most acute by reason that they are membranous; the stool is longer after the torments, the blood is exquisitely mixt with the excrement by reason of the longer passage, the blood is blacker. Purging medicines must be given by the mouth: 'tis almost incurable.

Another *of the great guts*, in which the paine is less by reason of their fleshiness, tis cheifly perceived about the navel, by reason of their situation; the stools are quickly after the torments; the blood & purulent matter swims upon the excrements of the belly. *Note* that for the most part the great guts are tainted, and being tainted medicines are best administred by glisters. Somtimes the stomach and neighboring parts are drawn into consent, somtimes the belly over against the ulcer and hole is perforated, by reason of the putrefaction communicated to it.

III. Another is *from things external*, viz. either from *poysons*, whose cure is performed by vomits; by things that dul them whiles they teare, as milk, rice, fat broths; by antidotes, cheifly six grains of an *emrald prepared*; but they must abstain ten hours from meat, and sweat. Or by *purging medicines* that are very strong, and then if you consider the cure, after absterfives 'tis good to drinke warme milke, new treacle, &c.

Another is *from things internal*, of which hereafter.

IIII. Another is *epidemical and malignant*, in which we must act with things alexipharmacal, amongst which are harts-horn, terra sigilata, Corals, saphyres, water germander, pulvis Bezoardicus aureus. The same may be mixt with purgers.

Another is *simple*, to which those things above may be applied.

V. One is from *Yellow choler*, from which for the most part it begins, the which sometimes is generated in the stomach, somtimes in the guts, sometimes is cast from the bladder of gall, the meseraick veins, the whole body.

Another from *Black choler*, which if it be voided by reason of a crisis in feaverish diseases it may be cured. It ought not to be purged before it be tempered, and then with Lenitives.

Another is from *Choler of a leek color, and the rust of Brass*, which though by Nature collecting it self it may be cast off, yet not presently.

Another is from *Salt Flegm*, which somtimes is produced in the head from a great heat, somtimes in the stomach; being carried to the Guts, and by its clammines sticking long to them, it troubles them, and at length Exulcerates. 'Tis hardly Cured. 'Tis wel rooted out with *Agarick and Mechoacan*.

Point, 4. *Of the Bloody and Hepatick flux.*

I. *The bloody Flux is known* both by the sight, and by this, that it is voided without pain and exulceration. *It ariseth.* 1, *By reason of plenty of Blood* proceeding *either* from a hot distemper of the Liver, and then there wil be signs of fulness. 'Tis voided without pain and wasting of the Body; the Urin is thin, of a Goldish color. Thirst oppresseth both by reason of the wasting of the moist substance, and the heat of the Liver. *In the Cure* the diet must be abated, the Liver must be corrected by succories and other proper coolers, steeled milk, &c. If Choler be mixt with it, it must be emptyed. *Or* from the cutting off of some member, and then blood must be let according to Course. *Or* from the suppression of some accust omary Evacuation, and then we must act by frictions, the stoppage must be opened. 2. *by reason of a vein broke or opened*, which is known by this, that it is cast up also by vomiting. Some vehement fal hath happened before. Fainting is Caused by reason of the putrefaction in the stomach. The cure is difficult.

II. *An Hepatick flux* is either *Exquisite*, which *is known* by this, that that which is voided doth look thinly red, as the washing of the flesh of a beast newly kild, doth not clod together, doth flow more frequently, yet not so often as in a dysentery; without any knawing, but yet not without a Heavy pain; the Eyelids are swelled and the Feet, the excrements are crude. *It ariseth* from a weakness of the Liver, and the defect of natural heat in it, from causes that do dissipate, or choak it up. *The Cure* must be hastened because this Disease Leads to an ill habit of Body, a dropsie, and Consumption. *'Tis hard* when tis beginning, and in young men. *Almost incurable* when its inveterate and in old men, and in them also whose spittle is bloody, somwhat pale, or clearly cholerick. It excludes Purgers, and

it

is perfected only with altering & strengthning medicines mixt with the meats (Hens Livers Chickens and Geese stones, are commended.) Or *Spurious*, in which the blood is *either* acrid by the mixture of Choler, *or* thick by its long stay in the Liver, or elsewhere, *or* fæculent by reason of the foulness of the Liver because the Spleen doth not attract the feculent parts.

Title, IV. *Of the Affects of the right Gut.*

Chap. 1. *Of the Diseases of the right Gut.*

THe Diseases of the right Gut are, *Inflamation, warts, Clefts, and Fistulaes.*

I. *Inflamation* comes either from violent Causes, or from Medicines, and corroding cauteries. It *is known* by the sharp Launcing pain, fixt in one and the same place, by a vain desire of going to stool, in which by reason of the greatness of the Tumor obstructing, nothing or very little is voided. *The cure is difficult* both because the part is endewed with an acute sense, and because the Excrements of the Belly hinder Applications, and because by reason of the heat and moisture of the place, the Disease degenerates into Ulcers.

II. *Warts* are either *Condylomata*, or swellings of the Skin of the Anus, viz. Hard and callous bunchings, growing out from a Melancholy humor more troublesom than painful. Or *Thymi* or the rougher warts, having a narrow basis and large superficies, which do easily pour forth blood into the same; which if they grow out much are called *Ficus*; If they bleed, they are worst of al, especially if a disposition to a Cancer draw neer. Or *Crista*, or excrescences of flesh arising from prepostrous Venery. *They are taken away* either *with the Ashes of Mouse dung* boyled with Wine and applied: or *with the oblong shels of Fishes* found by the Sea side, calcined and boyled the same way and applied. That they grow not again they must be anointed with Vineger, and *the Ashes of the Twigs* of a Vine.

III. *Rhagades* or *Clefts* are oblong Ulcers of the Anus without a tumor, and those superficial or deep, Callous or without a Callus, moist and pouring forth filth, or dry and Cancrous: *they arise.* 1. *From the too much hardness of the Excrements*, which in their passage do break the Skin. 2. *From a dry distemper*, having joyned with it sharp Humors and sometimes malignant, where moistners take place. 3. from *flowing of sharp corroding humors* that have a certain clamminess, by reason of which they stick to the part, and then an itching and most sharp pain with burning troubles them. The Purgers ought to be gentle and moistning. Care is to be taken of *the Virulency* which discovers it self by the filthy smel and evil matter. A Clyster of *the Mucilage of Tragacanth, the Seeds of Fleawort, of each one ounce and an half; Fresh Butter, three ounces; Red Sugar, one ounce; Oyl of Violets, five ounces; is commended.*

IV. *Fistulaes* do follow inflamations, Tumors and Ulcers of the Anus ill Cured. *They are known* by their narrow Orifice, but a bosome lurking within. There is voided thence matter sometimes watry, sometimes virulent. *They are divided* into those which *do not penetrate* either into the right Gut, or into the bladder, which is discoverd by putting in a Probe; which if they bring no great discommodity are only to *be Mundefied* with the Decoction of Agrimony and a little Alum: and the Orifice if it be too narrow must be dilated with Elder Pith that the matter be not retained: but if they *ought to be Cured*, universals premised, they must be washed, dilated, and cut. And those which *do Penetrat* either *to the Right Gut*, and then the Excrements of the Belly are voided through them, and liquor injected comes out through the Gut: or *to the Bladder*, and then the Water is made through them. Or *to them both*, and then a Fart is let from the Privities as wel as from the Arse. All these are seldome Cured. Amongst things consolidating, *Joel* commends the pouder of *Mercury Precipitate* strowed on, laying over it a common Plaister. Ursenick prepared, or reduced to an Oyl layd on, and the same Plaister over it. If the Fistula be in *the Sphincter muscle*, the Excrements of the Belly issue forth of their own accord. See *Hippocrates* concerning them.

V. Hither belongs also an *Intertrigo*, which *is an Excoriation of the Parts neer to the Anus arising from vehement motion.* 'Tis Cured with Deers and Goats Suet.

Chap. 2. *Of the Symptomes of the right Gut.*

THe Symptomes of the right Gut are; *Itching of the Anus, Teneſmus, the flux of the Hemorrhoids, and the ſtopping of them.*

Article, I. *Of Itching and the Teneſmus.*

The Itching of the Anus is a Certaine painful tickling of the ſame.

There is no need of *Signs*. The *Differences* are taken from the Cauſes. I. One is from *ſharp, Salt, and Viſcous Humors* ſticking to the Sphincter, which muſt be emptyed: but the Arſe muſt be waſhed with the Decoction of the Leaves of Mallows, Violets, Roſes with Plantane water and a little Alum. 2. Another is from *the Excrements left there*, which are wel waſht off with the Decoction of Mullein. 3. Another from *Worms*, of which in their Chapter. 4. Another from *an ulcer*, to the which the Cure muſt be directed.

II. *A Teneſmus is a continual deſire of going to ſtool, with pain, in which either nothing, or a few Mucous things are voided.*

There is no need to add any *Signs*; ſomtimes the right Gut fals forth, and a dropping or difficulty of Urin happens, by reaſon of the Neerneſs and conſent of their Parts.

The CAUSE is whatſoever is fixt to the extream part of the right Gut, and can ſtimulate its Expulſive Faculty: but what that is, ſhal be explained in the Differences.

The CURE muſt not be neglected, becauſe from neglect of it oftentimes a ſordid Ulcer remains, which ſomtimes paſſeth into a Fiſtula. It reſpects the Cauſes and the pain which muſt be mitigated.

The *Differences* are taken from the Cauſes.

I. From *the too great cooling of the right Gut*, which is taken away with the Decoction of the Flowers of mullein, chamomel, Melilot, Dill, with the Seeds of Flax, Fenugreek, Bran.

II. From *the Stone* or *worms*, concerning which ſee in their places.

III. From *the cauſe producing a Dyſentery*, and then the manner of Cure is the ſame almoſt with that of a Dyſentery. Let the quantity of the Clyſter be but little, the Ulcee be waſhed and healed. *The Mucilage of the Seeds of quinces* and Fleawort extracted liquid with Water or Plantane, Nightſhade is good, adding Bole armenick or waſht aloes and caſt in by Clyſter.

IV. From *Cholerick humors*, or *Flegmatick and Salt* ſticking to the ſame, where a Clyſter of the broth of *weathers Fleſh* with a few drops of Oyl of Wax being given takes place, &c.

Article, II. *Of the Flux and ſtoppage of the Hemorrhoids.*

The Flux of the Hemorrhoids is too great a caſting forth of blood by the Hemorrhoidal Veins.

This Diſeaſe hath no need of SIGNS: Firſt of al there flowes black blood, feculent and thick, and it comes forth as it were by drops whiles they wipe their brich, afterwards good and ruddy, at laſt yellowiſh and pale. From thence the thighs grow weak, the Hips feel a heavy pain, the color of the Face is depraved. Somtimes it obſerves its Periods, ſomtimes it neglects them.

The CAUSE is whatſoever doth either Irritate the Expulſive faculty of the Veins and arteries of the Liver or Spleen; or hurts their retentive.

The CURE ſhews it muſt be ſuppreſt, which is performed by *Revulſion*, by opening a Vein, and by the external and internal *uſe of aſtringents*. *Outwardly* are good by a propriety, *a girdle of the Leaves of Black Hellebor* bruiſed, freſh, and girt about the naked body; upon the uſe of which, if pimples be raiſed the pain muſt be taken away by its remedies. *Spunges* which grow under the ſeats of hot Houſes in baths, if they be burnt to pouder in a new pot, and ſtrewed on. *Colcothar* or that thick Feces which is left at the diſtilling of Oyl of Vitriol, if they be toucht with it, one only being left. *Inwardly* is commended *Eſſentia Martis*, of which ſee *Hartman*. A Confection of *the refuſe of Iron*. The Old Conſerve of Roſes with Bole armenick, &c.

The *Differences* are taken from the Parts and Cauſes.

I. One is of *the internal*, which ariſeth from a branch of the Spleen, extended through the Meſentery

Mesentery about the Colon and right Gut, in the Muscles of the Anus and inward part of the Gut, having an Artery joyned with it, that alone is there terminated. *It is known* by a weight about the Fundament, difficulty of going to stool, by Clysters, Suppositories, or an instrument. And also if a Cupping-Glass be applied, as *Zacutus* hath done.

Another is of *the External*, which proceed from the Epigastrical branch of the Vena Cava, and are disseminated to the external parts of the right Gut, viz. The Muscles of the Anus, but they are two, having an Artery joyned with them from the Hypogastrical Artery. Yet they seem al to have communion one with another. *It is known* by the sight, and because 'tis greater, 'tis also more dangerous. *In the Cure* external things have a convenient Application.

II. One is by *default of the blood*, which either is *too much*, and then there are signs of fulness, we must revel by bleeding in the Arme, or if strength wil not bear it, by fixing Cupping-Glasses to the Loyns or Hypochondries. Or *sharp and thin*, and then it happens most to Southern people, especially to men that are Sanguine. Serous Humors if strength wil bear it, ought to be emptyed: if not, we must use coolers and things that thicken the blood; amongst which, Purslane, Trochiskes of burnt Ivory, and Amber do excel. Or *it flows from the Liver*, and then 'tis like to Water in which flesh new kill'd is washt. *The Syrup of corals* is good. Or from the *upper Parts*, and then the blood is black and burnt. Or from *the Mesentery*, and then 'tis little, somwhat white & Serous. Or from *the Guts*, and then 'tis mixt with the Excrements.

Another is *by default of the Veins*, which either *are opened*, in which Cause we must use *Agglutinatives*, as the Mushrum, which is called the Wolfes Fart, &c. Burning and cutting, the which are dangerous, especially in those that are inveterate and of long continuance. Or *Eaten through and broke*, and this Evacuation Casts a man into a Dropsie and other Diseases.

II. *The Suppression of the Hemrrhoids is an interception of the blood endeavouring to get forth through the Veins of the Anus, from whence they are raised up into a Tumor with pain.*

The *Signs* are a tumor and bunchings out in the heads of the veins of the Anus, sometimes hard & like unto warts, somtimes soft caled like to mulberries, somtimes of a purple colour, and like to grape stones; the pricking paine, is somtimes milder, somtimes more greivous, the Veins being distended whose Mouths hangs as it were out of their heads, and the membrane which covers the orifices of the Veins, stretcht and prest.

The CAUSE is Fæculent and thick blood desiring to get forth.

The CURE must be *hastened*, both because it threatens a dropsie if the blood run back to the liver, and because unless it be seasonably remedied, by reason of the great attraction, and flux of humors it causeth inflamation, impostumation or a fistula. *It is performed*, 1. *By mitigation of the pain*, which is asswaged by the crum of B*arly bread* steeped in womans milk, adding the yolk of eggs and saffron. 'Tis taken away *with laudanum* dissolved in womens milke, & applied with honey, but most of al with *Butter*, *Sugar or anima Saturni*, with *flies* of sheeps dung boyled in oyl of flax to the consumption of the creatures, *with the ashes of corke* burnt, and boyled with capons grease, with the oyntment of toad-flax, concerning which see *Hartman*. 2. *By opening them*, universals premised, by application of leeches: or before that be done by an ointment *of the Pulp of Coloqintida* and oyl of sweet almonds; by the juice of onions mixt with aloes applied, rubbing first the part with a course cloth. Sharp glisters do hurt the guts more, then they provoke the hemorrhoids. Unless they swel very much and be very painful, they ought to be left to nature.

In the differences of *the internal end external* veins we must have a care. The suppression of *those* is perceived by the squeezing of the Anus, and thrusting up a probe. Of *these* is obvious to the sight.

Title. V. *Of the affects of the Mesentery.*

Chap. 1. *Of the distemper and obstruction of the Mesentery.*

THe affects of the mesentary are, *distemper*, *obstruction*, *inflamation*, *impostumation and pain.*

I. *The distemper of the Mesentery* for the most part is hot and dry, which ariseth from the

the like matter, which either is collected there, or sent thither from some other part. *It is collected* either in its *veins and arteries*, and then because the breast hath the greatest consent with the hemorrhoidal artery, because the trunke from whence the artery ariseth descending from the heart, presently at its first rise, doth propagate the intercostal branches, there are continuall pains felt in the breast; or also *in its glandules* by their laxness easily drinking up the matter. *The cure* must not be neglected, because 'tis wont to fore-run a dry dropsy. But it hath nothing singular, except this, that by those arteries not onely the first passages, but also the whol body might be purged, whether you give purging medicines, or inject glysters; and this perhaps is the cause, that purging medicines layd to the navil do move to stool.

II. *The obstruction of the mesentery* is twofold, one *when the milky veins are obstructed*, which is knowen by this, that a chylous and white flux of the belly doth molest, and a consumption follows, the matter necessary for the nourishment of the body being denyed. That *ariseth* either from a thick, crude, clammy, viscous chyle, generated of the like meats, or from a tumor of the glandules compressing them. Another is *when the mesaraick veins are stopt*, which is known by this; that the matter restrained, causeth a sence of distension and heavines, beatings of the arteries about the back are troublsome, after taking of meat the evil grows more fierce, and the stomach is compresst, &c. That *ariseth* either from *vaporous* and thick winds, or from *sharp humors*, and *then* the paine is more vehement, sometimes while the evaporation lasteth, the evil possesseth the whol cavity of the breast, that somwhat is at hand like unto a suffocation; somtimes there is a tumor raised about the mouth of the stomach, and vaine belchings are produced, those things being suppresst that should be voided by the lower parts. *The cure* is perfected, 1. By openers, and those indeed gentle. That give strength to the liver and Stomach, penetrating incisive, drying, lesning putrefaction, and a little while astringent; not by sweet things but bitter reduced into the forme of electuaries or pills, but that liquor be drunk after them. *By tartarous* things unless the saltnes or sharpnes of the humors do hinder, by things that savour of *Oxymel*. 2. By *purgers*, unless windines do hinder, and those gentle, not constant, after the same manner, given by little and little, liquid. 3. *By vomiters*, but not violent, *Platerus* his *essence of broom* is commended. 4. *By diuriticks* that make thick humors fluid &c. the liver is strengthened by *Leonius his pills of the refuse of Iron. By Mercatus his antidote of steele.* By *Penotus* his arcanum *of vitriol, sulphur, and sallows, &c.*

Chap. 2. *Of the inflammation and impostumations of the mesentery.*

AN inflammation of the mesentery is a tumor of the same arising from humors poured forth with the nourishing blood into its spaces, or deeply impacted in its glandules, and putrefying by the accession of external heat.

The signs are a slow feaver, for the most part a semitertian, a pain in the Loins, sometimes on both sides, sometimes in the right, which extends it self to the fore part of the belly, above and about the Stomach; costivenes of body, chylous stools, which for the most part a thin matter doth follow, somtimes sincere and yellowish, sometimes mixt with the excrements. *It differs* from the pains *of the stomach, of the womb, Chollick, and Stone*, by the signs expressed in them. *From the Fatnes of the Belly*, because this may be al comprehended in the hand, because it cleaves to the upper skin, and may be separated from the muscles of the belly. *From a tumor of the muscles of the belly*, because that where 'tis prest causeth paine, and doth not so much bind the body.

The Cause is explained in the definition; the blood *is poured forth* thither, because the way for it to the guts is stopt, either by astringent things, which happens in a dysentery ill cured, or by plenty of thick, clammy humors, suddainly rushing to the guts.

The Cure must not be neglected, for 'tis dangerous both by reason of the feaver with which the patient wasts, and by reason of the putrefaction, by which the mesentery is corrupted. But 'tis extended somtimes to the fortieth day, sometimes to the eighty, somtimes it lasts al the life time, a feaver and collick paines somtimes returning, somtimes ceasing. *'Tis performed* as in other inflamations, only note, that the coolers ought to be more benign

left

leaſt the matter be more impacted. *The purgers* muſt be none or gentle, nor in the beginning left more be attracted, but when the inflamation tends to concoction. Neither is *Caſſia* ſafe enough in the undertaking of the Cure.

As concerning *the Differences*, ſomtimes *the Guts alſo are inflamed*, and *then* al things are worſe. Somtimes *the Inflamation ſticks about the glandules*, and *then* they are lighter. Somtimes *the neighbouring Liver is drawn into conſent*, and *then* a burning Feaver for the moſt part goes before, the evil afterwards tending to ſuppuration, a ſlow Feaver follows.

II. *Impoſtumations* that do moleſt *the Meſentery* are various; for, 1. If you conſider the *place*, *either* they are above the Navel, *or* beneath it, *or* about it. 2. If *the Conſtitution*, ſomtimes the Meſentery is found made up *of many great Schirrous Tumors*. Somtimes *Stones* are found in it. Somtimes it hath *infinite Impoſtumations* without ſenſe and pain, included in their proper bagg, and conteining, a Gypſeous, glutinous or liquid matter. But they are hardly *known*, and ſomtimes not till after death; yet if the Belly be ſwelled, and the Symptomes preſent, and there are no ſignes at hand, neither of a dropſie, nor of ſome other Diſeaſe of affinity with it, we ought to ſuſpect them. But *they are voided* prodigiouſly. *Somtimes* of its own accord this filth breaks forth by the ſtool, and oftentimes fetching a circuit it returnes again. *Somtimes* being copiouſly poured forth between the Peritoneum and Muſcles of the Belly, it either fals into the Cavity of the belly breaking the Peritoneum, or breaks outwardly by an impoſtumation, &c. *Somtimes* this happens, the patient bearing it wel, ſomtimes it haſtens his death. Concerning their *Cure* theſe things in general muſt be noted. 1. That the belly ought alwaies to be looſe. 2. We muſt make haſt with reſolving materials, but light, that have an aromatick vertue, mildly aſtringent. 3. Amongſt deterſives *Mercatus his Syrupe of Steel*, bears the Palm. 4. To Conſolidate, *Cypres Turpentine* any way prepared is to be preferd before al, eſpecially if the matter offending lurks in the Loyns, and about the Kidneys. 5. For the ſpeedier ripening of the impoſtumation *a Bath of ſweet water* muſt be often uſed. 6. That the ſtrength is exceedingly confirmed with *the eſſence of Arſmart*, and Oyl of vitriol. 7. Sharp things ought to be avoided, becauſe by their penetrating and abſterſive Faculty they corrode the Ulcers, and deſtroy the temper.

Chap. 3. *Of the Pain of the Meſentery, and the affects of the Caul, and Pancreas.*

THe pain of the Meſentery is a ſaid ſenſe of it, which ariſeth from a hot and ſharp matter thruſt into the menbranes of it, afflicting with a perpetual Pain of the belly and Loins by intervals, eſpecially the time of Autum drawing neer, and ſomtimes is diſperſed into the head and whole body.

The Signs *of that to come* are a Jaundice diſpoſition conſpicuous in the eyes, and every where about the temples, the appetite loſt, a heavineſs increaſing in the Hypochondries, ſeldome going to ſtool, ruddy Urin. Of *that preſent*, a ſtrong ſuppreſſion of Wind and Excrement, a vehement Pain of the Belly and Loyns, a caſting up of Medicines by vomit, little ſucceſs of Clyſters, &c. The ſtrength is not to be Judged by the Pulſ, for that is ſmal in al great pains. Of *that Increaſing*, the ſick caſt off al Hopes, the ſtone for the moſt part gathers ſtrength, the neighbouring Muſcles of the Belly and the Peritoneum from the internal putrefaction gather Corruption, the pains diffuſe themſelvs into the whol compaſs of the belly, nay they paſs to the utmoſt joynts, yet chiefly to thoſe of the ſhoulder and Feet, at laſt Convulſive motions poſſeſs them. It *is diſtinguiſhed* from the pains *of the Womb*, *Kidneys*, *Ileon*, *Sciatica*, by the ſigns which are delivered there.

The CAUSES are ſharp putrid Humors, endewed with a quality inimicous to al the bowels, eſpecially the liver and ſtomach, which after Nature hath in vain tryed to empty by ſtool, are caſt into the Meſentery, which is nothing elſe than the peritonæum doubled and faſtend to the Loins.

The CURE is *doubtful* if the pains be low, becauſe they are the ſtronger. If they be felt above the navel, and are not diſſolved by any Medicines, becauſe they end in a dry dropſie. If pains of the Kidneys ſucceed by reaſon of the neerneſs of the mine of corruption. If

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new obstructions succeeding, the evil from thence grows more fierce. *Of little or no hopes* if vomitings molest, cold sweats, and often hickops. If they last long, the patients be feaverish and loath meat; because 'tis to be feared, least the paine proceeding to the head, do suddenly kil them after the manner of convulsions if watchings preserve and be vehement. If an inverted course of nature draw neer. If a hectick arise, or a suppuration of the peritoneum and neighboring parts. *'Tis performed,* I. *By taking away of the Causes,* where do take place, 1. Glysters, which to mollefy ought to be made of *Goats milk* with cassia and oyle of violets. To clense we must ad a little hiera picra, and honey of violets, 2. Purgers by intervalls repeated, if you perceive obstructions by the ruddy water, gentle, from which notwithstanding we must exclude *manna* by reason 'tis abundantly windy, 3. Preparatives and openers of the decoction of *Scorzonera, grass, strawberries,* with the cordial flowers, to which we must premise anointing of the belly with Oyle of *Violets, dil, Chamomel,* a little butter in which a *Snakes Skin* ought first to be boyled. 2. By *mitigation of the pain* by cataplasmes, unctious, fomentations, baths of sweet water, narcoticks also mixt with purgers, &c.

II. *The Pancreas* doth chiefly labor *of obstructions,* whence the stomach by reason of its neerness is affected, pains and the sence of a weight are caused about the region of the stomach, and pulsations in the back, by the compression of the celiacal artery, and also a difficulty of breathing molests them by the consent of the midriffe. *The cure* is perfected by the same remedies, as the obstructions of the spleen.

III. *The Caule* by twiggs from the spleen branch, doth oftentimes receive feculent humors from the spleen, in that part especially, which is between the spleen, the midrif, and the stomach, in its cavity in the left hypochondry under the diaphragma, arising from the connexion of the stomach, Caule, colon and bowels, and having no passage out. Oftentimes from thence the belly in the left part towards the navel is raised up into a tumor, oftentimes the belly being prest, a sound and noyse is heard. They cannot be *emptyed* unless they vanish by the continued drinking *of bath* or *sharp waters. If it putrefy* or suffer *an impostumation* the cure is in vaine,

Titile VI. *Of the affects of the Liver.*

Chap. I. *Of the diseases of the Liver.*

Article, 1. *Of the Distemper of the Liver.*

THe diseases of the Liver are, *distemper, obstruction, inflamation, a schirrus, wounds and ulcers.*

The distemper of the liver, is a swarving of the same from its natural temperament by reason of external and internal causes.

The Signs are fetcht from the hurt of its action, and others (of which in the differences.)

The Causes are *either* not natural and external, *or* the neighbouring parts, as the stomach, heart; and that *either* by contact, *or* by communication of matter: *or* the collection of matter in the vessels or parenchyma, by reason of some fault of the liver, either innate, or acquired.

The Cure varies according to the nature of the differences. Internal remedies, because the liver is situate in a lower place, ought to be the more efficacious. *'Tis performed,* by alteration, and removing the matter offending.

As concerning *the Differences,* the distemper is fourfold.

I. One is *hot,* and that either simple or *without matter,* which *is known* by this, that there is a loathing of meat, and most of al of flesh, and nevertheless fastings doth hurt, a vehement thirst troubles them, the whole body is hot, especially the palms of the hands, and soles of the feet, and either they are moist or dry, the belly is somewhat dry by reason of the extraction of the moisture from the chyle. It is *cured* by coolers, amongst which the cheife are, the roots of *Dandelion and Strawberries,* the leaves of *Succory, Endive,* the seeds of *Sorrel, the greater and lesser cold seeds,* the wood of *Saunders,* fruits of *Cherries, Currans, Strawberries.* Of compounds, syrupe, *of Corals, Strawberries, Sorrel, Citrons, Succory.* The Salt of *Corralls.* Pouders, *Diatrion Santalon, diarrhodon Abbatis,*

Diamargaritum

Diamargartium Fridgidum. Mynsichtus his *niter vitriolate.* Amongst external things, Saccarum *Saturni*, a Cerote of *Saunders*, oyle of *green olives.* The mixture compounded *of the Water Lillies, henbane, the flowers of white lillies, plantane, Red Roses*, each one ounce and an half. *Salt of Saturne, Camphure dissolved* in spirits of wine, each one scruple: *Sal Prunella* half a scruple, adding a little of *Tragacanth*, and applyed to the right hypochondry, &c. Or *with matter*, which *is known* by this, that a bitterness of the mouth, a loathing of meat, and a vehement thirst doth trouble them, and a feaver either an intermitting tertian, or a flow feaver, or erratick, doth vex them, by which the body by degrees is dryed up. That choler doth break forth by vomiting and stoole, first of al thin and pale, afterwards thick, truly yellow and stinking. It *ariseth* from choler, either generated in it, or sent from the bladder of gal laboring of obstruction, or from some other part. It is *cured*, 1. By *revulsion*, by opening a veine in the arme, by scarifying, or friction, if the humors flow from some other part. 2. *By attraction*, by Succories cheifly, if the humors be already flowed thither. 3. *By evacuation*, either by *the stool*, where syrup of *Roses*, of the *Leaves of Rubarb* and *tamarinds* take place, or by *urine*, where *whey, grass roots, barley take place.* 4. *By strengthening of the liver* that it collect no more.

II. Another *is cold*, and that either is *simple and without matter*, which *is known* by this, that there is a greater desire of meat, no thirst, a voiding of flegmatick, crude, and oftentimes of liquid matter, there is generated a watry and crude blood. *'Tis hardly cured* because 'tis more repugnant to the nature and office of the liver; and 'tis cured *by things that alter*, amongst which the cheife are. The roots *of burnet, the true acorus.* The leaves of *Wormwood, Agrimony, Centaury the less, Betony, Maidenhair, Raisons, Cloves, Nutmeg, Cinnamon, Agallochus* of compounds, *Mynsichtus* his tincture of *Cassia lignea, treacle, mithridate*, Mynsichtus *his aromatical* rowles. *Cratoes* confection of *Rhubarb.* The pouders of *Diamargartium calidum. Or with matter*, which is *known* from the foregoing of the like causes, the white color of the face and whol body, a soft habit of body, flegmatick stools, a heavines in the right hypochondry. *The rise* and *cure* do follow other distempers. The *essence of Mars* is good, the preparation of which see in *Hartman.*

III. Another is *moist*, which *is known* by the soft pulse, watry blood, liquid excrement, thick urine. The cure is performed by dryers.

IV. Another is *dry*, which possesses in a contrary manner, neither is there any things singular concerning its cure; for the most part it troubles in composition.

Article, 2. *Of the obstruction of the Liver.*

The obstruction of the Liver, *is a narrowness of the vessels in the liver, caused by a matter filling up their cavities, and hindring the distribution of the nourishment.*

The signs are heavy and obtuse pain in the right part of the hypochondries, which after the taking of meat is increased, especially if soon after meat, some violent exercise be undertaken. The excrements varying from their natural manner, oftentimes more liquid and copious, because the chyle is not received. A change of the color especially in the face, by reason that the sanguification and distribution are hurt, &c. But it is *frequent* that a veine from the porta dispersed through the substance of the liver in most fine branches is obliterated; and it hath others no less smal from the Vena Cava, through al which the nourishment ought to be produced and carried.

The *Cause*, is the matter filling up the cavities of the vessels, or also the very substance of the liver, whether it be generated there, its action being hurt, either by a distemper, or by some external error: or whether it flow from elsewhere, either by reason of its attraction, or reception.

The Cure is difficult, both by reason of the narrowness of the veins in the liver, and because more diseases do follow upon this. It *is performed by things that open obstructions*, amongst which are commended, *Riverius* his extract of *pils of amoniacum*, made *of gum amoniacum*, dissolved *in Vineger of squills*, three drams; *the species* of *diera picra* one dram and half; *crude aloes* four scruples; *Myrrh* one scruple; *Saffron* six grains; With *Syrup of Wormwood*, Quercetans *Pilulæ tartareæ*, reformed by *Sennertus. Tinctura Martis* whose description is in *Petreus*, from one ounce to two three and more; *Deodates* pouder compounded of *the species of diarrhodon, Diatragacanth*, each two drams; *Agrimony, Madder Roots, Ferne poudred, Sorrel, Purslane seeds*, each one dram; *Magistral of pearles, Corralls, Crocus Martis made without corrosives, Crocus Martis*

prepared by oyl of fulfer, each foure ſcruples, with ſugar-candy as much as is ſufficint given one dram, the former tincture being drank after it. Pils *of ſteele.* The decoction of the *whiteſt tartar* mundefied and poudered one pound, made with foure ounces of *crude ſteel* and two gallons of ſpring water, and given two ounces in opening broth. *Penotus* his *opening* ſpirit &c. In the *cure* theſe things come worth obſervation. 1. That univerſals muſt be premiſed before particulars and topicks. 2. That medicines ought not to be given to drink but a long while after meat, leaſt they carry with them crude humors to the liver. 3. Aſtringents muſt be added to mollifiers, as ſpicknard, burnt Ivory, that the tone of the liver may be preſerved. 4. That things attenuating, diſcuſſing and reſolving ought to be moderate, leaſt the thinner parts diſcuſſed, the thicker doth remaine. 5. That we uſe ſweet things, not as meats but as ſauces. 6. The medicines muſt be given liquid, or finely poudered. 7. Topicks muſt never be applied actually cold. 8. After the uſe of ſteel-medecines the body muſt be ſtirred; unleſs black excrements do follow we muſt abſtaine from them.

The *Differences* of this *obſtruction* are various.

I. One is lately, which is the eaſier, cleared. Another *inveterate*, which cauſeth putrefaction and a Feaver, and produceth a jaundice, ſchirus, and dropſie.

II. One is in the *hollow part* of the liver, which is *known* from hence, that nothing is perceived outwardly by reaſon that the part lurketh deep, the ſtomach is drawn into conſent, from whence is loathing of meat, nauſeouſneſs, vomiting, thirſt, liquid excrements. *It muſt be cured* by things that empty by the ſtool.

Another in the *gibbous part, which is known* from hence, that the belly preſt on that place doth reſiſt the midrif, eſpecially becauſe the liver is joyned to it; the excrements of the belly appeare bloody by reaſon of the light change of the chyle into blood. The *Cure* is the eaſier, by reaſon of the penetration of medicines, and the emptying of the obſtructing matter by a larger paſſage, we muſt act cheifly by things that move urine.

III. One is from *Blood* either *pure*, which is remedyed only by the opening of the baſilica in the right arme; or *cholerick hot* and which is joyned with paine, being a long time preternaturally impriſoned in the liver, and not timely purged it grows wonderfully thick. Or *flegmatick*, viſcous, and thick, which ariſeth from groſs meats, viſcous, too much by baths, or motion, forced or carried into the ſmal veins: ſometimes it fals from the brain into the ſtomach, by and by paſſing through, by degrees it penetrates with the nouriſhment into the ſmal veins of the Liver.

Another from *Winde* that is groſſe, impriſoned under its coate, or ſticking in the veins, which is *known* from hence, that the paine is greater, but not continual, there is ſuch a great tumor of the right hypochondry, that it fils up the whole hypochondry, ſo that the ends of the ribs cannot be perceived: yet tis without heavineſs, and being preſt it yeelds, it makes no murmuring, and gives no ſuſpition of an impoſtumation lurking there. It *ariſeth* either from *windy meats*, from which they muſt beware; or from the *weakneſs of the liver* not able to overcome the matter; & then the matter prepared muſt be emptied; or 'tis ſent from the *neighboring parts* and the whole body, eſpecially in flegmatick Feavers. The *Cure* in general requires carminatives, of which in the dropſie.

Article. III. *Of an inflamation of the Liver.*

An inflamation of the liver, is a hot tumor of the ſame ariſing from blood impacted and putrefying in the ſubſtance of the Liver, afflicting with a continual feaver, a heavy paine, and ſence of a weight in the right hypochondry.

The SIGNS are a ſence of *heavineſs* in the right hypochondry, from the membranes, with which the liver is joyned in ſome to the baſtard ribbs. A *tumor* in the ſame, which appeares greater the ſick lying on his left ſide, leſs the body being bowed to the right, and the liver ſliding under the baſtard ribbs: *A paine* reaching from the throat to the baſtard ribbs, by reaſon of the heape of matter reſtrained, which puls the membrane that lines the Breaſt. A *Feaver* whoſe vehemency follows the greatneſs of the inflamation, and at night is exaſperated the inflamation growing hot. *A dry cough* by intervals by reaſon of the vapors raiſed up to the lungs, and afflicting the midriffe by compreſſion. *A Difficulty of breathing* becauſe the feaver brings a greater neceſſity of cooling, uneaſie lying, both on the right ſide, becauſe the liver is preſt by the ſtomach and guts, and on the left, becauſe the liver hanging the membranes are retcht. A ſwift and unequal pulſe, by reaſon of the neceſſity

ceſſity of cooling increaſed by the hot diſtemper, &c. It *is diſtinguiſhed* from an inflamation of the muſcles of the belly, and pleura, by the ſigns mentioned there.

The CAUSE is blood impacted and putrefied, which *either* is attracted, *or* tranſmitted, *or* flows thither; *either* by default of its quallity, viz. its thinneſs, heat, and accrimony; *or* by reaſon of its quantity and abundance; *or* by the impulſe of external cauſes, as while hot medicines are applied to the ſtomach.

The CURE *is difficult* becauſe a principal part is affected, and by occaſion of it, there is iminent the feare of a dropſie or conſumption. *Of little or no hope*, if the hickops follow, becauſe it is a ſigne that the liver is come to the higheſt inflamation, and ſo by communion of the nerves the mouth of the ſtomach is drawn into conſent. If a looſneſs follow, becauſe this voiding of crude matter proceeds from the weakneſs of the faculty. If a burning and continual feaver accompany it, becauſe it ſignifies that bowel is exceedingly inflamed. If it come to *Superation*, which is *known* by this, becauſe that happens after the twentieth day if nature be not weake; paines and feavers with other ſymptomes grow ſtrong, yet moſt by night: ſhakings aſſail in no order, and with no reaſon, which are attended mith an exacerbation of heat: becauſe from the impoſtumation there ariſeth a ſordid ulcer, becauſe tis perpetually waſht with the nouriſhment, and filth of humors; and whereas the ſolid ſubſtance of the liver as being ſpermatical cannot be repaired, tis incurable if it tend to *induration*, which is *known* by this, becauſe after forty dayes the feaver and paine doe falſely vaniſh, without any ſenſible evaccuation, the tumor and hardneſs remains in its place with dejection of appetite, and a dayly waſting of the body. *Of ſome hopes*, if there be ground it wil reſolve, which happens from the firſt moment of its invaſion, to about the fourteenth day, and is known by the abating of the ſymptoms, and colour of the urine. *It is performed* by the ſame means with which other inflamations are cured. *Yet Obſerve.* 1. That the baſilica or median of the right arm, be preſently opened the firſt or ſecond day. 2. That the repellers ought to be gentle, leaſt that the paſſages of the liver being too much ſtraitned an obſtruction be cauſed, or a ſchirrous be produced by things too much cooling, or the quitor breathing from the inflamation be caſt back into the Liver. 3. That the ſame ought to be gently aſtringent, corrected with thoſe things which are moderatly opening and abſterſive. 4. That things actually cold muſt not be applied, unleſs there be an eriſipelas, and eminent heat. 5. The impoſtumation breaking to the kidnies, Goats whey muſt be dranke with the immulſion of the foure ſeeds. 6. The ſubſtance of the liver being cleft and eaten into, if the matter fal into the cavity of the belly, we muſt proceed to burning and inciſion of the belly; concerning which ſee authors. For diſcuſſion 'tis thought wil ſerve wel, a Cerote made *of oyle of Mercury* one dram; *dulcedinis Saturni* two drams and half; *oyl of Galbanum* half an ounce; *red wax of cinnaber* as much as is ſufficient, and mix with miſtleto of juniper, *with the juice of Colts-foote or Galbanum*, and laid on.

The *Differences* of this inflamation are ſome.

I. One is *Great*, in which al things are more vehement. Another *Smal and obſcure*, in which the liver is beſet with ſmal ſwellings and impoſtumations like to felons, with no tumor or paine of the hypochondry, there is a feaver but not much burning, with thirſt and loathing. It *is diſſolved* by a flux of blood of the ſame ſide iſſuing from the right noſtril, on the firſt ſeven dayes, ſometimes on the ninth, eleventh, very ſeldome on the fifteenth, eſpecially if the patient be under five and twenty years of age.

II. Another is in the *gibbous part* in difficulty of breathing, which *Paulus* called ſuſpirium irruptum, a cough and heavy paine preſſing the throate are more troubleſom, lying on the right ſide is more difficult, as by which the part affected is preſt; the paine by touching and preſſing growes ſharper. The urine is ſlow, which if it be alſo with content like vetches it ſignifies a colliquation. The Tumor is readily perceived. Sometimes tis prominent and conſpicuous to the Eyes. *'Tis diſſolved* by bleeding at the Noſe if it be of the ſame ſide, with good ſweats, and plenty of Urine. *Things that move Urin*, are far more profitable than purging Medicines.

Another is in the *Hollow Part*, in which nauſeouſneſs, Thirſt, loathing of meat, the Hickops, Cholerick vomitings or ſtooles are more urgent, lying down on the left ſide is greivous and painful. The Tumor is not readily obvious to the touch. 'Tis diſſolved by ſtooles Cholerick, bloody, by ſweats and vomiting. Gentle *Clyſters* may be adminiſtred,

we must beware of *Purgers* given by the Mouth.

III. Another is from *pure Blood*, which is called *Exquisite*, and in which al things are more mild. Another from *mixt*, which is *Spurious*, and that either *Cholerick*, and then there is a burning Feaver, fear of a Consumption perplexes, vomiting of sincere Choler affects them, and somtimes voiding it by stool, which either inflicts a Diarrhy or a Dysentery. Or *Flegmatick*, which is seldome, and in which we must add to Topick Medicines, Mastick, spikenard, Wormwood, and the Oyls made of them, &c.

Article, IV. *Of a Schirrus of the Liver.*

A Schirrus of the Liver, is a hard Tumor of the same without pain, generated of a thick Humor, impacted in the substance of the Bowel, and hardned.

The SIGNS are a Tumor of the *left* Hypochondry, which is discoverd by the touch, if the Belly be slender and void of Fat, and is easier observed the Patient standing upright, or bowing to the right side, than lying on his back; but tis bounded by the Scituation and Figure of the Liver, and lying on the left side, with its bulk it lies on the Stomach and midriffe. An obscure pain, because the neighbouring parts endewed with sense are compresst by the Tumor of the Liver, &c.

The CAUSE is explained in the definition, but it doth not suddenly Cause a Tumor but by little and little, for first it stuffs up the smal Veins of the Liver, then being increased it redounds to the whol substance of the bowel, afterwards being much more fully heaped up, it distends the Liver into a vast bulk, that it appeares swelled, least of al being dryed, and the thin part dissipated by force of the heat, al the rest grows hard.

The CURE which is of little Hopes, is orderd. 1. By *Lenitive* preparatives and emptyers, as was said in obstruction. 2. By *things Emollient* and discussive, with moderate astringents, lest from those alone there may arise putrefaction and a Cancer, from these alone the danger of a greater induration. There are commended, *Labdanum* with *Indian Balsome and Wax*, the Plaister *of Hemlock and mandrakes with Ammoniacum. Fabricius Hildanus* his Oyntment *of Hemlock, &c.* 3. *By things that open obstructions*, among which excels *Tartar Vitriolate* with Raisons, Cinnamon, and the Leaves of Agrimony. Barcoletus *his Tartar Tartarized*, which moves by Urin, &c.

As Concerning the *Differences.*

I. One is *Beginning* joynd with pain, which is called *Spurious*, and it yeelds to cure. Another *Confirmed*, *Exquisite* without pain, which causeth a Dropsie, and cannot be Cured.

II. One is from a *Cholerick matter*, which is known by this, that Causes heaping up a Cholerick juyce went before, the signs of Choler abounding and a hot liver are present. It follows a Jaundice, and hath a slow Feaver its Companion, and precipitates into a dropsie which is called Ascites.

Another is from *a Flegmatick matter*, in which Causes heaping up a thick Juyce went before, there are present the signes of a Liver cooled, a Cachexy and universal Dropsie is Caused. The disease lasts long without any discommodity, and if it be turnd to a dropsie, first of al it passes into a Cachexy, then into a universal dropsie.

Another is from a *Melancholly matter*, the signs of which also wil be present.

III. One is in the *Gibbous part*, where some good is done by Topick means. Another in the *hollow part*, in which also internal remedies ought to be administred.

Hither belongs *A Tumor of the Liver*, without a Schirrus, which *is known* by this, that it grows in a short time, is less resisting, the Fingers cannot be thrust under the ends of the Ribs. It possesseth only the Membrane that compasseth the Liver, yet somtimes it fils up the whol Hypochondry. It *ariseth either* from a viscous Humor, *either* sprung from meats of that Nature, *or* made such by cold alteratives given about the time of Evacuation. *Or* from a thin crudity arising from meats, drink, and other things inducing cold: or from a thin wind. The *Cure* is perfected by things opening and emptying.

Article, V. *Of the Wounds and Ulcers of the Liver.*

The *Wounds of the Liver*, which in Aged and ill habited bodies, are very *dangerous*, but by reason of the long effusion of blood are *deadly*, are either from *external causes*, which are Cured by things astringent and agglutinative, (red Roses dryed are commended) or from *a Contusion*, which hath Joyned with it

a vomiting

a vomiting or dejections by ſtool or Urin with blood, it is more dangerous than a wound, and degenerates into an impoſtumation. In the *Cure* it requires. 1. The opening of a Vein in the Arme. 2. Potions Compounded of aſtringent things. 3. The Flux of blood being ſtopt, the diſſolution of congealed blood by its Medicines.

An Ulcer of the Liver is a corroſion of the ſame from matter or juyce.

The SIGNS are an ulcerous pain in the right Hypochondry, a Cough, a Jaundice color of the Face, a voiding of putrid, ſanious and bloody things by the ſtool or Urin, an Atrophy, becauſe there is neither blood made, nor the man nouriſht.

The CAUSES are, whatſoever things corrode the ſubſtance of the Liver, of which ſhal be treated in the Differences.

The CURE muſt not be neglected, although it be of *little Hopes*, for it grows foul by a perpetual filth, becauſe tis continually waſht with the nouriſhment; 'tis ordered as in other Ulcers.

The *Differences* of the Ulcers of the Liver are various.

I. One is in the *Superficies*, which is leſs dangerous; another in the *Subſtance*, which is deadly, becauſe a ſpermatical part cannot be Regenerated.

II. One is in the *Gibbous Part*, which *is known* by purulent Urins without the ſigns of an exulceration in the bladder, and Kidneys, by difficult breathing, by pain of the midriff. Another in the *hollow part*, which is *known* by the bloody and ſomtimes purulent ſtooles, by the pain of the Guts by reaſon of the acrimony of the matter, by the ſenſe of pricking and heavineſs about the Liver.

III. One is which *follows an inflamation*, which hath ended in an impoſtumation, and this is dangerous, eſpecially if the matter be contained in the ſubſtance of the Liver. Another is, which ariſeth from *ſharp and corroding Juyces*, which *is known* from hence, that it creeps on by degrees, the ſtrength not impaired, a Feaver ariſeth in the progreſs, obſerving no type, which at length ends in a Hectick. Loathing of meat afflicts them, eſpecially of fleſh, &c. *It ariſeth* from the default of corrupt or putrefying nouriſhments, generous Wine heats the bowel, and dries it, and heaps up a certain putrid clammineſs and matter.

Chap. 4. *Of the Symptomes of the Liver.*

Title, I. *Of the weakneſs of the Liver.*

THe Symptomes of the Liver are, *Weakneſs, Cachexy, a Dropſie, Jaundice, and atrophy.*

The weakneſs of the Liver, or atonia, is a hurt of the faculties of the ſame induced by its Cauſes.

The SIGNS ought to be taken from the conſideration of the Excrements of the Belly, of the urin, and color of the whol body; as ſhal be manifeſt in the differences.

The Cauſes hurting the faculties of the liver, are diſeaſes of diſtemper, whether it be hot or cold; to which is added an external error. viz. when either the chyle is not rightly elaborated in the ſtomach, or being wel elaborated, ſomewhat vitious is mixt with it, &c.

The Cure, ought to be perfected with things that ſtrengthen the liver, and are appropriate to it, as are *the liver of a wolfe, a calfe, of hens, ſnailes, raiſons &c.*

As concerning the Differences.

One is by reaſon of the *Sanguifying faculty*, which either is hurt by a *cold diſtemper*, or the defect of natural heat; and then the excrements of the belly are like to the waſhings of meat new killed, which the cold growing more intenſe do ceaſe: crudities ariſe, with which the feet firſt, and then the other parts abound, becauſe the veins do ſuffer with the liver ill affected, as being their original. For the cure of this ſerves, *Rupert Cranesbil bruiſed, a lie of the pruning of vines* with wine, &c. Or from *a hot diſtemper*, in which the chyle is burnt as it were, the excrements are like to the dreggs of blood &c.

Another is by reaſon of the *attractive facul-*

ty, and then moist things flow down by the stool like creame, although there be no fault in the stomach, no obstruction of the mesentery.

Another is by reason of the *retentive faculty*, and then is rendered by stoole things like to the washing of flesh new killed, yet seldome moist and mattery. &c.

Article, 2. *Of a Cachexy.*

A Cachexy is a diffusion of the whol body into a watry and swelled softneß by default of nourishment.

The Subject is the whole body, but those parts especially which are obvious to the eyes, as the skin and the muscles.

The signs are a color, by reason of the flegmatickness of the blood, sometimes white, by reason of the mixture of cholor or melancholly, sometimes livid or leaden. A tumor with heavines and sluggishness, especially in the feet and hands, by reason of the descent of serous humors, and their distance from the heart: and also about the eyes in the face, cheeks, eybrows, because those parts by their laxness do easily receive serous humors.

The Cause is the fault of nutrition. For though that which is put to the parts, doth concrete and adhere, yet by reason of the too great plenty of crudities 'tis not assimilated. To wit, *the blood is flegmatick, crude and serous*; and that is generated such, either by reason of *impure nourishments*, corrupt, and producing abundance of serum. Or by reason of the *bowels*, which either are *impure*, either from a Scirhus as hath been said, *or* from the effusion of a corrupt humor, as hath been observed in a suppression of the courses, that purulent matter from the obstruction of the ureters, returning into the veins, the blood being infected, hath infected the whol habit of the body. *Or* from their corrupt substance; for so vitious and corrupt blood is brought forth, and carried out to every part, and there concreting. It leaves a vitiated substance instead of a good; hence the Cachexy is various according to the nature of the blood; The flegmatick affects virgins, and threatens a universal dropsy. Or they are *weak*, because they have been hurt either by the continuance of diseases, or by too much evacuations, or by long imprisonment, &c.

In *the Cure* we must diligently observe, 1. That regard be had to those diseases from which the cachexy proceeds, 2. If humors abound they must be emptyed especially with things that purge water, 3. To open obstructions is commended the *cachectick pouder* of steele prepared one part, Cassia lignea three parts, of the whitest sugar four, the pouder of young geese turds. 4. Sweats are happily moved with *antimony diaphoretick*, 5. The Cachexy of virgins is driven away by the distilled *water of Walnutts* fresh cut into thin slices, steeped in white wine twenty four hours, sweetened with Canary sack, and exposed some few days to the sun, and taken three ounces weight, using exercise after it.

Article. 3. *Of the dropsy in general.*

The dropsy is considerd either *in General*, or *in special.*

The dropsy considered in general, is a tumor of the body, or of part of it, preternatural, arising from a watrish and serous humor, or a collection of wind.

The Signs of it are, a swelling and puffing up of the body, a heavines, difficulty of breathing, an extensive pain in the right or left hypochondry, a filthy color of the face betwixt green and whitish, or declining to a yellowish or lead color; little urine and deep dyed, continuall thirst, partly from the defect of natural and alimental moisture, partly from the ascent of hot salt vapors drying up the mouth of the stomach, partly by reason of the little aire drawn in, whence the heart and lungs also boyl with thirst. *But concerning the tumor of the feet*, we must note, 1. That they cheifly swel after excercise of the body and in the eveining, because the waterish humor by its own weight tends downwards. 2. In the night concoction being finisht the swelling bates, by reason of the increase of the heat, the heat of the bed helping somwhat too. 3. They do often swel in those that are recovering either from acute diseases, or of long continuance, because the languishing heat cannot concoct so much, as the patient receives, and the crude and serous part which ariseth from thence, flyes to the feet without any eminent danger, if it be timely taken care of.

The Cause, is the fault of nutrition, proceeding from a cold distemper of the liver, which is induced *either* by the extention of heat either immediatly by the six non natural things or mediately, by diseases of the whol, or of other parts. Or by the *dissolution* or dissipation of it either from too much heat, or from other causes.

The cure is not *difficult*, if the dropsy be of late. *Difficult* if after another disease it seize upon a body

a body weakned. If it be inveterate. We muſt obſerve in it. 1. That we begin with gentle things. 2. Becauſe the diſeaſe is chronical, remedies muſt be uſed the longer time, 3. Leaſt nature be accuſtomed to them, they muſt be varied. 4. Somtimes for a while we muſt forbear, leaſt nature be oppreſt. See the manner in the ſpecies.

Article, 4. *Of an Aſcites.*

The dropſie conſidered in *Specy* is either an *Aſcites*, or *Tympany*, or *Anaſarca*.

An Aſcites is a diſtenſion of the belly from a watry, ſerous, and Salt Humor, poured forth into its Capacity, by default of the Liver, Spleen and Kidneys, with a Tumor of the Feet, Thighs, and ſomtimes of the Cod.

The SIGNS are a ſwelling of the Belly, which begins from the lower parts as being moſt diſtant from the heart the fountaine of heat, a ſlenderneſs of the upper parts, the belly being ſtruck a hoarſe ſound as from a bladder half ful: the ſick turning from ſide to ſide a noiſe like the Murmuring or waving of Water. The Diſeaſe growing ſtrong there follows a difficulty of breathing by reaſon of the abundance of water lying on the midriffe. A Cough ſomtimes either from the compreſſion of the midriffe, or from the peircing of the Water into the breaſt, from whence ſuffocation in a ſhort time enſues, the impreſſion of the Fingers Leaves behind it a manifeſt mark in the fleſh.

The CAUSE is a watry and ſerous Humor, whence Dropſie people piſſe little; they that piſſe much after great draufts, are not taken with a Dropſie. And ſome by abſtinence from drink have been reſtored to health. That humor is *collected* if you conſider *the place* between the ſtomach and kidnyes, through which otherwiſe naturally the ſerum is wont to be emptyed: eſpecially in the ſpleen veine, the meſaraick, and perhaps in the branches of the ſpleen artery, and the roots of thoſe veins about the hollow parts of the bowe , gaſtrical and epiploical. Whence after quartanes and long continued feavers whoſe cauſe is in the meſaraick veins, a dropſy follows. If *the cauſe*, 'tis collected from too much drink and moiſt meats, by the acceſſion of the fault of the bowells which either attract, or contein the ſerum, by which it comes to paſs, that it ſtays in the belly, and afterwards is poured forth into its cavity. But it *is poured forth* into the capacity of the belly, or that ſpace which is between the peritoneum, the caule and the guts, cheifly by the epiploick and gaſtro epiploick branches: yet ſo as neither the *caul*, which hath veins only from the vena porta, and can eaſily receive the burthen of the meſentary and ſpleen; nor the *pancreas*, which in its middle hath a ſplenicke veine paſſing to the ſpleen with the left branch of the celiacal artery, are free from fault. The humor *poured forth*, although it be cold, yet becauſe it contains many ſalt parts, and borrows heat from the neighboring parts, 'tis hot alſo, but by continuance of time it putrefies, from whence is raiſed a corruption of the bowels, a Feaver, thirſt, whiles the vapors ſtrike the mouth of the ſtomach.

The Cure is *of better hopes* if the patient be young and ſtrong. If a ſlave who is able to endure hunger, thirſt, and other troubles, if more moiſture be voided by urine, than is taken; if the water whi h is in the veins flow to the belly or ſtool, the bowels unhurt. Of none almoſt if it come from an acute diſeaſe, becauſe the bowels, the radical moiſture being waiſted do contract a cold and hectick diſtemper which cannot be corrected. If the water break forth into the caul, and that be corrupted. If it happen to the ſplenetick after a longe dyſentery, becauſe by the paſſing of the evil humor, the ſymmetry of the innate heat is periſht in the guts and bowels. If a cough come upon it becauſe it ſhews that the watery moiſture is ſo much increaſed, that it penetrates into the breaſt, and doth already poſſeſs the rough arteries. If impoſtumations or ſpots break forth in the thighs, if being eaſed by remedies 'tis wholly renewed again, becauſe it ſignifies the bowels are corrupt, and poſſeſt either with a ſchirrus, or conſumption and hectick diſtemper. If it ariſe from a colliquation, becauſe al the ſtrength is diſſolved, and the body languiſheth. *'Tis perfected*, 1. *By the emptying of the water poured into the belly*, premiſing a preparation of thick humors, if they intervene. But it is emptyed, 1. *By* the *Stool*, by medicines that purge water; *the gentler*, *as mechoacan*, *Jallop*, which may be given to one ſcruple and an half; the Juice of *Flowerdeluce* clarified, which may be given to three drams with ſyrup of endive ſix drams; Parſly water half an ounce; and the pouder of diarrhodon Abbatis one ſcruple; *With peach flowers* dryed and boyled in wine. The *ſtronger*, as *gambugia* which is given from ſix grains to fifteen (ſee *Reudenius* concerning it.) *Rulandus* his extract of *eſula*, *trochiſkes of Alhandal*, or the ſame authors *Spiritus vitæ aureus*. The extract of *elaterium*

um most commended by *Massaria*, from one grain to three grains. The magistral, or Crystal *Lunæ of Tentzelius*, given chiefly at the Wain of the Moon from four grains to five. *Mercurius vitæ* fixt by longe digestion, *Crocus Metallorum Absinthiacus* of Mynsichtus, the same authors *Tartarus Emeticus*, &c. All which must be given on even dayes, not too often nor the bowels too much corrupted, after the use of them we must see whether they bear it wel, and the bowels must alwaies be strengthened. Concerning a Paracentheſis or tapping, see Authors. 2. *By diuretick*s, which ought to follow purgers of water, amongst which beare the palme, the pouder of *earth worms* given one dram weight with the decoction of asparagus or fennel. The salt *of ash salinated* as *Billichius* delivers. Wine twice or thrice strained through the ashes of *bean straw* burnt, six handfuls, the tops of broome, Juniper, each two handfulls and a halfe, woodbine one handful and a half, and given six ounces weight. 3. *By swaeters and dryers*, as are the Root of swallow wort steept and boyled in Wine. *Antimony Diaphoretick*, the decoction of *Sassafras wood*. *Treacle* in wine the quantity of a smal Walnut with a few drops of Oyl of Sulphur, *Lapis Serpentis*, concerning which see Joel. Outwardly, *Mynsichtus his Plaister de Cineribus*. 2. *By strengthning of the parts*, that the Water be not collected again; here are good, the Trochiskes *of Wormwood*, *Paracelsus his Diacubebæ*, &c. 3. by diet, which see in Authors.

The *Differences* are taken from the parts, by whose default the serum is collected.

One is by default of *the Kidneys* that do not attract the serum, either because they are *Exulcerated*, and then some matter appears in the urin, the piss is much less than in other Causes: or because *the Ureters are broken*, and then it ariseth suddainly. That comes to pass for the most part in expelling the stone.

Another is by default of *the Spleen*, which when as it is as it were spungy, it ought to draw the water from the stomach by the vas breve, that office being delegated to it by Nature; which may be carried from hence by the splenick Artery into the Cœliacal, by and by from the trunk of the Aorta by the emulgent Arteries to the veins: It doth that either *too greedily* by reason of an inflamation risen in the Veins, which *is known* by a pertinatious flux of the belly, which doth neither take away the swelling of the belly, nor the pain by reason of a Hectical distemper, and either from the weakness of the veins not attracting the nourishment, or from the corruption of the same and continual voiding of Cholerick Excrements, it afflicts with a heat in the jejunum gut and mesentery. Or *it neglects it altogether*, *either* by reason of the obstruction of the passages tending to it, caused by thick humors. *Or* by reason of the dissipation of heat, from a schirrous, too much emptying, the use of hot things, the distemper of the neighbouring parts, acute Diseases. *Or* by reason of the suffocation of heat by the too much use of cold things, from the suppression of the Courses, from superfluous Evacuations, &c.

Another is by default of *the Liver*, either for the same causes not attracting the serum, or retaining it: or by reason of the same inflamation too much attracting; and then there is a desire of coughing; the Excrements are few and dry, by reason the serous Humor is sent into the belly, and the rest is burnt up by the heat of the Liver.

Article, V. *Of a Tympany, and Anasarca.*

A Tympany is a distension of the belly from much wind, raised up either by a weak, or burning heat, contained within its Capacity.

It is called also *a dry dropsie*, although for the most part 'tis joyned with Water.

The *SIGNS* are these, the Skin appears retcht like the skin of a drum, and struck upon gives the sound of a Drum, the Navel hangs forth much. The puffing up of the belly is greater, but the heavines less. Compressing of it doth not leave behinde it so conspicuous a mark, but the hollow print is presently filled up, belching and Farts often break out, noise and rumblings Obmurmurate. *It must be distinguished from the distension of the breast after wounds*, which doth possess the breast, back, Loins, Cod, Arms, Neck, nay somtimes the whol habit. It proceeds from hence, that the Air which ought to pass streit through the mouth to the Lungs, and from the Lungs again to be breathed forth through the mouth, a way being open between two Muscles, or the Muscles and the skin, 'tis blown from the wound as from a pair of bellows into the space between the skin & muscles: and hence furthermore it penetrates into the neighbouring parts.

The CAUSE is wind, which if you consider

sider, *its rise* springeth either from a weak heat, or from too much and torrefying, which resolves into Vapors that which is subtile being violently stirred, as is seen in black choler lying under the stomach. If *the place*, 'tis neither in the stomach, because it would be cast forth by belching, nor in the Guts, because it would be voided by stool, but for the most part 'tis generated between the coates of the mesentery and Guts. For in the dry Dropsie, the torments afflict about the Navel, greifes and pains of the Loyns: but the mesentery forward is united to the smal Guts, backward to the vertebres of the Loins from which it springs, from whence is this distention; yet it is found also in the Cavity of the Guts, and it insinuates it self thither through the Orifices of the Mesaraick Veins.

The CURE requires. I. *The bringing forth of the matter* producing the Wind, where takes place, *Fardinandus* his *Antipneumatical wine*, concerning which in the History, 38. The Coagulated *Spirit of Salt*, with Wormwood water, and spirit of Elder. 2. *The Discussion of the wind, outwardly* by a great Cupping-Glass applied to the Belly; by frictions with *Garlick* bruised and boyled in generous wine; by a fomentation of *a Boyes Urin, and Lapis Prunellæ*, concerning which see *Hartman*. *Inwardly* by the Decoction of *Ebony wood*, the spirit of *Guajcum*, the Arcanum of *Cummin and Carrawais*, the liquor of *the flowers of Mullein*, &c. 3. *The correcting of the hot distemper of the Bowels* if there be any; *the strengthning*, if it be weak.

II. *An Anasarca or Hyposarkidion, and Leucophlegmaty, is an equal increase of the bulk of the Body preternaturally throughout the whol body, arising from default of the nourishment.*

The SIGNS are an increase of the Corporal bulk, greater than in a Cachexy, equal through the whol body, so that the feet and Leggs swel in the begining, a softness of the body, a Laxness, Paleness, and weakness upon the least labor, a continual Feaver, slow, with a pulse smal, oft, and unequal, the Urine white, thin crude, &c.

The CAUSE is the fault of the nourishment, which by reason of the immoderate coldness of the Liver and Veins (of which we spake in distempers) is Flegmatick and crude; nay the body is spred over with a clammy and congealed water, and though the nourishment doth both concrete, and adhere to the part that is to be nourshed, yet 'tis not assimilated.

The CURE is *Easier* than in others, because a Flegmatick Humor, comes neerer to the Nature of blood, than a serous; besides a strong diarrhy comming at the beginning while the strength is firme, the Disease is Cured. *'Tis Performed.* 1. *By emptying the watry matter*, dispersed throughout the body, both by things that Evacuate by the lower Parts, amongst which is commended the extract or Salt of *Hedg Hyssop* mixt with Rhubarb. And by vomiters, which see else where: and by bleeding, if it arise from a Plethorick Cause or retaining the blood, least by the plenty of the cold Humor the heat be overwhelmed, which must be done at the beginning. And by sweaters, as the Decoction of swallow wort used, especially in a Laconick Bath, before you enter into it, some of *Weckerus his water* is wel administred, (concerning which see *Hartman*) 2. *By strengthning of the Bowels*, the Liver especially and stomach, of which in their places. *Fardinandus* commends the covering of the Patient in a heap of Wheat for to dry up the matter.

Article, VI. *Of the Jaundice.*

The Jaundice is either *Yellow*, or *Black*, of which shal be spoken in the Symptomes of the Spleen.

The Yellow Jaundice is an effusion of a Yellow or greenish Humor into the habit of the Body proceeding from its Causes.

'Tis called also from the Name of a smal bird *Galgulus*, from the variety of colors in the Rain-bow, *Arquatus*, and becaus 'tis tenderly handled at Court, *Regius*, or becaus 'tis beleeved to be Cured with Honey and wine a Princely drink.

The SIGNS of it are, a yellowness of the whol body, a Citron or pale green, which is observed in the white of the Eye, and at its inner Angle, where the great Veins are. A distension of the Veins under the Tongue; a pain of the right Hypochondry, or a hardness too. Bitterness of the spittle, with Cholerick Vomiting, the Hickops, and pain in the Head.

The CAUSE is a Humor of the same color, which is poured forth into the habit of the Body, for the Causes to be mentioned in the *Differences*.

The CURE varies according of the Nature

of the Differences. Yet it *respects* two things. 1. *The Cause*, which must be removed. 2. *The Symptomes*, which must be taken away, after universals have been premised. For the Face and Eyes is commended, the fume from *hot Vineger* in which Rosemary hath been boyled. *The Specificks* are, the extract of *Columbine*, and *Celandine*, which with a little Bezoar is given to the rich. An Emulsion of *Columbine Seeds* with the distilled Water of the same, for the poorer sort, the pouder of *Earth worms*, three or four live *Lice* in a poched Eg, if we beleeve *Zacutus*, which is a most sordid medicine. *A live Moth* laid on the Navel til it die. *A live Spider*, in a Nut shel hung about the Neck, placed to the pit of the heart, til it die. Amongst *Magick things* are reckoned the Patients bepissing of *Nettles*, Cloths dipped in his Urin and exposed to the Air, and many other things; concerning which see *Petræus*.

The *Differences* are taken from the Causes.

One is from those things *that generate plenty of choler*, which are either *External*, as sweet things, hot meats and drinks. Poysons especially, as the Gal of a Leopard, the biting of Vipers and venenate things; and then we must act with *things Alexipharmacal*, peculiarly opposite to the Nature of the Poyson, in which also we must have regard to the manifest qualities. Or *Internal*, as are. 1. *A hot and dry distemper of the Liver*, and then the Urine is vehemently colord and thick, the Excrements of the Belly are dyed of a Saffron color, the Feet and hands are hot. 2. *An Inflamation and Impostumation* of the same; of which formerly.

Another is from *those things* which do hinder *the purefying of the blood and the separation and Exclusion of Choler*, as are, 1. *The compression* of the bladder of Gal by a Schirrus of the Liver, or some other Tumor, which see above. 2. *The Obstruction* of the same from thick flegm, plenty of Choler, stones and other Causes, which is *either* in the passage reaching to the Liver by which it is attracted, and then the Excrements are dyed, *or* in that tending to the *Duodenum*, by which 'tis cast forth, and *then* the Excrements are white; *or* it comes to pass by default of the Liver, and then the right Hypochondry is distended; if it become hard it foretels a Dropsie, *or* by default of the bladder it self, and *then* it invades suddainly, the belly is slow to stool, the Excrements becaus they are not dyed, look white. *It is cured*, 1. *With things that open obstructions*, amongst which prevails, *Dodder of Vetches*, the Decoction of *the Strawberry Plant* with horehound and Raysons, the Juyce of *Nettle Roots* bruised in wine with Saffron, *Young Geese Dung* gathered in the Spring, dryed and given one dram weight. *Cremor Tartar* diluted with steeled Wine, spirit of *Tartar*, &c. 2. *With Purgers* given by course with openers; amongst which *Rhubarb and Hiera Picra* are the best.

Another is *from those things which do suddenly expel choler from the inward parts to the Circumference of the Body*, which cheifly comes to pass in acute Feavers, in which *either* it is cast forth critically, and then there went before Signs of coction, and the Disease is Cured. *Or* Symptomatically, by reason of its plenty and Acrimony, and *then* it happens before the seaventh day. If it be *without a coldness*, 'tis thought to be *either* from a weakness of Nature, *or* from an Inflamation: if *with a coldness* the Feaverish matter is cast forth from the Bowels and veins to the Skin. *In the Cure* we must have respect both to the Feaver, and the Liver.

Article, VII. *Of an Atrophy.*

An Atrophy is a drying and wasting of the whol body arising from the disappointment of its nourishment.

The Subject is the whol body, especially in relation to the soft Parts, the Fat and Flesh; the harder Parts indeed may be dryed; but they cannot be so diminisht, that from thence the whol body should decrease.

There is no need of SIGNS, whenas the affect is apparent to the Eye.

The CAUSE is the disappointing of nourishment, which proceeds *either* by default of the nourishment, when that either failes, that it is not taken, not attracted, not put to, is discussed, &c. Or is Vitious. *Or* by default of the nourishing Faculty, when the Native heat, or radical moisture fails.

The CURE respects. 1. The Symptome it self, where take place, *a Bath* of the Decoction of the Head and Feet of a Weather, of red fallow. Of sweet water in which have boyled the ashes of Hazel, Flax Seed, the bones of a Weather bruised. *A moistning Diet*,

Diet, of the Emulsion of sweet Almonds, of the four greater cold Seeds, with Goats Milk, &c. *The magnetick Cure*, concerning which see *Hartmans* Chymiatry. *Anoyntings* with *Amatus Lusitanus* his Unguent, *in Sebastianus Austrius de Morbis puerorum*, p. 555. 2. *The Causes* of which in the Differences.

The *Differences* of an Atrophy, are Various.

I. One is *Universal*, of the whol body, of which we have now spoken; another *Particular*, which proceeds from a peculiar fault of a part. In the Cure take place, fomentations, dropaces, pleations, and percussions, by which the drines of the part is corrected, the obtuse heat is roused up, and the nourishment is attracted.

II. Another is from *worms* which vex Children.

Another from *the Stomach* that doth not wel elaborate the Chyle.

Another from *the Liver*, when that is either troubled with a hot and dry distemper, and washt with much Choler, or is very much obstructed, that the nourishment doth penetrate with difficulty.

Another from *the Spleen*, to which the same things may happen.

Another from *the obstruction of the Mesentery*, which is familiar in the East Indies, and for the most part hath Joynd with it a bulimy with a Lientery: but it turnes also to an impostumation, (which so washes the whol mesentery, that the Guts confused without any order do stick together only by thin Skins.) In the Cure is commended *the Cross grass*, of which see *Alpinus* concerning Ægyptian plants. cap. 40. See also concerning these things *Bontius* in medicina Indorum. p. 196.

Another is from *the Heart*, which is in a Hectick.

Another from *an Ulcer of the Lungs*, which happens in the Phthisick.

[Read more of this subject in the Guide to Physick and Chyrurgery, *Riverius* Practice of Physick, and his Observations; and the *London Dispensatory*. All of the last Editions, Englished by me.]

Title, V. *Of the Affects of the Spleen.*

Chap. 1. *Of the Diseases of the spleen.*

Article, I. *Of the obstructions of the Spleen.*

THe Diseases of the Spleen are, *Obstruction, puffing up, Inflamation, a Schirrus, Ulcers, and wounds.*

The Obstruction of the Spleen, is a stuffing up of the thick Humors.

The Part Affected is the Spleen, either according to its Veins and Arteries, or according to its whol substance.

The SIGNS are these, at the beginning there is Caused a heavines of the Hypochondry, & a pain of the spleen, from hence a humor mixt with the blood, and diffused into the whol body dies it of a Livid color, makes a difficulty of breathing after exercise. Poured into the Stomach Causeth nauseousnes and vomiting; into the Guts, a diarrhy. Somtimes by reason of its dryness it binds the Body.

The CAUSE is an earthy and thick Humor, which oftentimes is collected from a Fenny Air, and grosse meats, and by reason of the weaknes of the Spleen, and interception of the Passages cannot be expelled. *Somtimes* 'tis heaped up by reason of a hot distemper of the Spleen, and the attraction of the Chyle unconcocted, which happens after often lying down on the lefe side, & too much exercise. *Somtimes* it stopps there by reason of an accustomary flux of the Hemrods intercepted, or the suppression of the Courses.

The CURE is ordered as in other obstructions, yet note, we must have a care of the Causes from which it comes; the vomits do good, when as there is a straite way from the Spleen to the stomach by the vas breve. *Of Purgers, Polypody and dodder of time*, with Raysons, senny with cremor Tartar are of Force. *Of openers*, the Flowers of *Broom* and *Saxonia* his electuary *of steel* are commended. A Plaister of *Ammoniacum* diffol-

ved in Vineger of Squils may rightly be applyed, Premising some convenient Fomentation. See *Solenanders strengthning* electuary in *Hartman*.

II. *The Inflation of the Spleen is a puffing up of the same into a Tumor by winde.*

The SIGNS are these, a Tumor and distension is perceived with some pain, but without the sense of heavines and a weight, A murmuring and sound is made. The Spleen being prest doth yeild.

The *Causes* are *either* too large drinking of cold water, *or* windy meats, as pease, chesnuts, beans, scallions. *Or* thick and viscous humors, which may be overcome by the weak heat and are resolved into vapors, which doe easily puff up the spleen, because it is spungy.

The *Cure* is as in others. The Chymists applaud the burning *Spirit of saturn* in the extract of ferne, and anoint the region of the spleen with the same thrice a day, purging in an external cause is disallowed, anointing with oyl of rue, cappers, &c. is sufficient.

Article. II. *Of an inflamation of the spleen, and schirrus.*

An inflamation of the spleen, is the lifting up of the same into a tumor, by blood poured forth into its substance.

Somtimes *the whole* spleen is affected, somtimes *not*.

The *Signs* are a tumor in the left hypochondry, bunching out as it were towards the fore parts, and as it were girting a man in the middle, so it is distinguished from the paine and inflamation of the left kidney which is higher than the right: there is a pulsation and palpitation of that side, by reason of the *arteries* with which it abounds, a continual feavet observing the periods of a quartan, difficulty of breathing by reason of the compression of the midriffe.

The *Cause* is blood poured forth and putrefying, which is *either* pure *or* mixt, and discovers its self by its signs.

The *Cure* ought to follow the method of other inflamations, so that larger drinking after purging be avoided, least the humor be carried to the substance of the liver.

II. *A schirrus of the spleen is a hard tumor of the same proceeding from a thick, glutinous and a hardened humor.*

The SIGNS are a resisting tumor with an ablong hardnes in the left side, and that without paine; to which are added a difficulty of breathing, a drines of the mouth, a swelling of the feet, uneasy lying on the left side, troublesome sweats, &c.

The CAUSE is a thick and glutinous humor, which *either* presently was such, arising from meats of a thick juice, from labors, watchings which do waste that which is spirituous in the humors. Or afterwards, when being thin of it selfe, tis hardened either by the force of heat, or by medicines too much discussing, or by its tartarous nature tending to induration. This diffused into the whole body with the blood, makes it livid and colour'd; and leads to a consumption, because the spleen oppress is not able to discharge its office of sanguification.

The CURE *is more difficult* if the patient have a diarrhy ensue, and a lientery, or water betwixt the skin follow it. *It respects* the same things as a schirrus of the liver. Amongst *things that digest* inwardly, are commended, the root of *ferne*, the pouder of *dead nettle* in meats, the wood of tamariske boyled in steel water to a third part. *The composition of ferne rootes* one ounce; *dodder of vetches* two drams, boyled in eight ounces *of strong wine to the consumption of a third part. Outwardly* amongst emollient things *Fabricius* unguent is of force, compounded of *Gum ammoniacum one ounce; oyle of sweet almonds, white lillies, hens grease, each two ounces; the juice of hemlock foure ounces; vinegar of squils two ounces.*

The *Differences* are the same as of a schirrus of the liver.

I. One is *new come*, which afflicts with pain extending it self to the very throat. Another *inveterate*, which is void of al paine, neither doth it easily kil a man, unles the liver be drawne into consent.

II. One affects the spleen only *according to its substance*, which also is bounded with the figure of the spleen; though this do sometimes according to its longitude appear as round, sometimes according to its latitude, somtimes swels according to al its dimentions. Another is poured forth *into other neighbouring parts also*, that for the most part it comprehends al the left region of the belly.

Article,

Article. III. *Of an Ulcer and wound of the ſpleen.*

Concerning *an Ulcer*, there is nothing to be obſerved, but that it followes inflamations and tumors, and caſts forth its matter ſomtimes by urine, vomiting, or ſtool. It muſt be purged, cleanſed, healed.

A wound is either in its *ſuperficies*, which is leſs deadly: or in its *ſubſtance*, which by reaſon of the effuſion of blood is deadly; whereſoever it is it pours forth black blood, for the moſt part alſo it affects the ſtomach, cauſeth thirſt and paine to the throat; the matter ſomtimes is voided by the urine, carried through the cæliacal artery, to the trunk of the great artery, and hence to the emulgents. 'Tis cured alſo with vulnerary potions.

Chap. 2. *Of the Symptomes of the ſpleen.*

Article, 1. *Of the paine of the ſpleen, and black Jaundice.*

The Symptomes of the ſpleen, are, *a pain* of the Spleen, *The black Jaundice, the hypochondriacal affection, and the ſcurvy.*

1. *The pain of the Spleen* ariſeth from the ſolution of its continuity, and diſtenſion of its membrane. This is cauſed both from *things external*, as blows, falls, &c. and *internal*, viz. inflammation, inflation, tumors, ulcers, &c. But it muſt diligently *be diſtinguiſhed* both from thoſe pains which are felt in the left ſide, eſpecially after meat or riding which proceed either from wind, or from ſerous humors, which flowing into the ſpaces of the peritoneum that ſticks cloſe to the coates in that place, do diſtend them from the muſcles: and from the paine of the muſcles, which is felt if they be preſt a little. *The Cure* requires no narcoticks, for when as it is cloathed only with a thin coate the paine is not exquiſite.

II. *The black Jaundice is a change of the ſkin of the whol body into black.*

'Tis *known* by the color it ſelf. It *ariſeth* from the ſame cauſes, as the yellow Jaundice doth, except that there the liver, here the ſpleen is in fault. *But tis harder to cure*, becauſe if it be by default of the bladder of gal, there is a greater corruption of choler, if by default of the ſpleen, the humor is more ſtubborn, and there is a fear of a dropſy. Medicines *of ſteele* are commodious in it, and alſo a dry bath, after which the body muſt be cleanſed with an emulſion of *hemp ſeed*, the face, with *beane flower* water mixt with wine.

Article, 2. *Of the Hypochondriacal affection.*

The Hypochondriacal affection is a filth of vitious humors collected in the branches of the vena porta, cæliacal & Meſenterical arteries, by reaſon of the hurt of the ſpleens concoction, without putrefaction, and by ſending forth of vapors, cauſing many Symptoms.

'Tis called *Hypochondriacal* by reaſon of the place of both Hypochondries, by which is underſtood that part of the body, which under the baſtard ribbs reaches as far as the loyns on both ſides, and comprehends with the muſcles the bowells themſelves. 'Tis called alſo the windy paſſion by *Diocles* and *Ætius*, for the familiarity of winds conteined in the left hypochondry, and it obtains the name of *Melancholly*, when as the brain is affected by conſent. As was ſaid before.

The Signs are fetcht from the ſymptoms, of the natural, vital, and animal faculties: there is. 1. A *crudity of the Stomach* by reaſon that it is ill nouriſht by the vena porta from the Spleen, which is followed with a continual ſpitting, Flegme filling the mouth with moiſture, vomiting up of the thicker parts of the humor, either generated in the ſtomach, or ſent from the ſpleen, and ſomtimes ſo ſowr, that the teeth are on edg, there goes before it an ebullition of the ſame in the ſtomach, wind diſtending the neighbouring parts, that ſomtimes the patient falls into ſwouning fitts: a diſcuſſion of the thinner parts of the humor by inſenſible perſpiration, ſometimes with a Feaveriſh ſhaking, which a certaine heat Follows preſently vaniſhing in ſweat. 2. *Pains in the ſtomach*, which reach even to the back, returne upon taking of meat, when 'tis concocted or caſt forth they ceaſe; they draw the kidneys into conſent by communion of membranes. 3. *Coſtiveneſs of body* both by reaſon of the dryneſs of the veſſels in both ſides, and becauſe the meat is changed into a flegmatick & viſcous humor, and ſo 'tis not moved forward by the gutts, and pertinaciouſly adhering to them, is the cauſe of aſtringency, 4. An inflammatory *heat* as it were of the *Hypochondry*, which by motion, meat, drink, hot things grows more fierce; which is attended ſomtimes with a redneſs of the cheeks and whole face by reaſon

of

of vapors ascending: a diary Feaver vanishing in sweat, by reason of the dispersing of them through the whol body by large drinking. 5. *A Urine* sometimes thin by reason of the passages obstructed, and the retention of wind, from whence the fit begins; sometimes troubled and thick by the admistion of humors, with a sediment sometimes of red sand, in which the tartarous parts of the blood are coagulated. 6. *A Flatulency*, and waving especially in the left hypochondry, the wind being imprisoned in the cavity under the midriffe, arising from the connexion of the stomach, caule, cholick gut, and bowels. 7. *Anxiety*, both because the meat half concocted is resolved into wind, and causeth a straitnes, and because being carried to the neghbouring vessels affected with a hot distemper, it boyls as it were with that Fiery heat, and distends the hypochondries, and so causeth a straitnes in those parts which have nerves from the sixth conjugation. 8. *A Palpitation of the heart*, either by consent of the stomach, or by the contention of the part it self against the malignity of the vapors, which is more frequent with some at the increase of the Moon, by reason of the greater plenty of serum than boyling in the mass of blood. 9. *A pulsation in the left Hypochondry*, which either the celiacal branch causeth especially after anger and motion, or the compression of the arteries in the mesentery by the glandules, the great one especially which is in the center. 10. *A drines of the Palate, mouth, and tongue*, by reason of the ascent of resolved vapors through the gullet and rough artery. 11. *Difficulty of breathing* both by reason of the affection of the nerves dedicated to the muscles of the breast, and of the effusion of the evil matter into the spaces of the muscles. 12. *A perturbation of the brain*, for the vapors resolved if they be acrid cause an *epilepsy*, if obscure, they darken the spirits and cause *melancholy dotage*; if many, they are authors of a *vertigo*; if dry, they cause watchings; which are wont to molest most men after midnight, because the chyle distributed, and carried to the second concoction, the spleen, and the neighbouring vessels, doth stir up the humors lurking in them, and raiseth up vapors from them. Which are carried towards the brain; if into the gullet, the muscles of the larynx, and rough artery, they cause a fear *of strangling* by reason of the destension of that, and the contraction of these; if into the nerves of the tongue, the armes, according to the tract of the nerves, they cause a *stupidity*, and a formicant pulse, sometimes in one, sometimes in the other hand. And these are, the symptomes, yet they do not invade al.

The Cause is the flegmatick, cholerick, and melancholy humors; yet melancholy cheifly, not only by their first and second qualities, as they are adust, viscous, fixt; but also according to their highest powers and strength, viz. hurting by their bitternes, saltnes, sharpnes and acidity. *They are collected, if you respect the place*, in the branches of the vena porta, the cæliacal and mesenterical arteries, the greater especially, and which do wash along the left hypochondry: neither the *vas breve*, nor the arterial nor venal vessels excepted, nor the caul, which hath large veins from the vena porta. *If the cause*, they are gathered, 1 by reason of the *concoction of the spleen* hurt; and truely *either* by a hot distemper, by which it attracts crude juice, the watery first, afterwards the thicker; which stopping in the veins being destitute of a vehicle, is thickened and burnt, and yeelds matter for the generation of winde: *or* by dryness, hardnes and scirrosity, its heat debating, by which the chyle not attracted subsides, and the excrements remaine not being cast off, as happens in a sedentery life; hence about the thirtieth yeare of our age the disease for the most part invades, *or* by an external error, when the chile is not concocted, either by default of the meats, or of the stomach, or passions of the minde, which while the meat is concocting doe cal away the heat to other parts, mixe choler stirred up by anger with the meats, trouble the spleene in its action, which abounds with many arteries. 2. By reason of *the fault of the glandules*, which underprop the vessels of the mesentery, whiles they either compresse them by a tumor, or being compresst in a sedentary life, they render them more streight.

The CURE *is difficult* by reason of the heape of symptoms. *The easier* if it be beginning, if it fal neither upon a ful age, nor declining; if the hemrods, swelling of the veins, courses come upon it. If it affect men rather than women, the fat and faine, than the swarthie. If a bleeding of the left nostril happen. If blackish urines be pist freely without a feaver. *It respects*. 1. *Chyrurgery*, by vertue of which *blood must be let*, where note, a veine of the arme may be opened, if a great part of the matter is communicated to the vena cava, and any inflamation afflict about the liver; that the external hemrod veins may very wel be opened, because being inserted to the same right gut, their mouths doe communicate with the internal.

internal. 2. *Physick*, by vertue of which. 1. *The corrupt humor* sticking in the first region of the body *must be brought forth.* Where glysters take place, and womits, especially if there be much in the stomach. 2. *The passages must be opened* and the humor prepared by things incessive and attenuating, where note that al things are rather to be used in a liquid forme, but if in a sollid, a drauft of liquor must be dranke afterwards: we must begin with the gentler, and end with the stronger. Amongst those things are, *of symples, the roots of scorzonera, male fern*, the herbs of *fumitory, spleenwort*, the flowers of *burrage, buglos.* Apples Burstorfian. *Of compounds*, the syrup of *sweet smelling apples, of fumitory*, the pouders of *diacurcuma*, the essence of *fumitory*, *gremander*, &c. of which formerly in the obstructions of the spleen and liver. After these, acid waters, baths, steele, must be given spring and autumn, which premising the evaccuation of the first passages, may be given in conserve of burrage from too scruples to one dram and half; upon an empty stomach, first of al every third day, til the twentieth, before they are accustomed to it, afterwards, a drauft of wine must be added, and walking up and down for two hours if they be able; four hours after taking of it, let them eate their dinner: if they voide not black excrements, we must forbear; but if they be wholy suppreft, we must move the belly. 3. *The humor prepared must be emptied*, by benigne purging medicines, corrected with moisteners, by little and little, given about the last quarter of the moon, interposing baths and moistening Fomentations, myrobalanes and cassia excluded. In a nidorous crudity things purging choler are best, in an acid, purgers of flegme and melancholly, taking meat two hours after that the medicine ascend not beyond the liver. 4. *The vapors fuming up must be diverted* from the head and the heart by frictions, glysters, cupping-glasses, caustick, and other medicines, as *elixer proprietatis*, conserve of *roses* with spirits of sulphur and vitriol, 5. The *Parts which it offends must be strengthened, and the simptoms taken away*, of which in their places.

The *Differences* are taken from the parts.

I. One is *essentiall*, which we have hitherto explained.

Another *by consent* of other parts, and this.

II. One is *stomachical*, which is *known* by often spitting after feeding, by sower belchings and savoring somwhat rusty, by pricking of the mouth and jawes, with which those so affected desire cold drink, by vehement pains of the stomach, which in some proceed even to the back, the meate being concocted they cease, by and by upon the taking in of more they returne, &c. *It is cured* by emptying, by diversion, by bleeding and cupping-Glasses. If greate paine afflict, by absterfives, dryers, strengtheners.

Another *hepatical*, which is *known* by the pain of the right hipochondry, loathing of meats, a slow and erratick feaver, the extension of the pain to the shoulders and cannel bones &c. in the *Cure* which see in distempers; if it be hot, whey is good with the juice of lemmons, or of sweet smelling apples newly expreft.

Another from the *womb* whose vitious blood doth easily regurgitate *either* from the veins into the arteries by reason of their anastomosis, or out of the arteries into the hypogastrick, which gives branches to the stomach, pancreas, caule, smal guts, &c. and by and by into the cœliacal. *It is known* by those accidents which are wonte to befal those troubled with the mother. In the cure we must have regard to the affects of the wombe.

Another is *hemorrhoidal*, happening from the suppression of the hemrods, of which in its place. See *Matthæus Martinus* concerning the abstruser diseases of the mesentery, who handles these things very accurately.

Article. III. *Of the Scurvy.*

The scurvy is a cachexy arising from a melancholly humor, corrupted in a peculiar manner, afflicting with a weakness of the thighes, spots, swelling of the gums, and bleeding of them, loosness of the teeth, and other Symptomes.

The Scurvy was known to the ancients, partly under the name of *Oscedo*, partly of *Scelotyrbe*, and *Stomacace*, partly of *Volvulus Sanguineus*, and is familiar to people inhabiting the Sea, and moarish places.

The SIGNS are put in the definition, and we shal treat of them hereafter. To these ad *the Urine and pulse too much variable*, that, for at the beginning tis thin and yellowish the tartarous matter subsisting in it, by and by thick and white: the humors being more corrupted tis red, and by the admistion of an adust

sal tis

saltness shining like a lye; and anon without any marke of putrefaction, and thirst, red sands oftentimes stick to the chamberpot. Somtimes tis thick and continues so, somtimes growes cleare, and casts to the bottome a red sediment which resembles flower of Bricks; somtimes many crude and flegmattick excrements stick above the sediment, as the suspensum: but in those whome the suppression of the hemrods hath occasioned this evil, in them it comes forth by drops with paine and heat, and conteins a tartarous matter, Mucous, Salt and blackish. *This*, because the pulse somtimes is weak, unequal, and often vermicular, but fainting fits approaching, by Reason of its high necessity, and because the Heart endeavours to expel the Vapors, 'tis stronger.

The CAUSE is *a Melancholy Humor*, and that, 1. Crude, as both the Diet and the Symptomes shew, which do afflict Melancholy people. 2. *Serous* and Ichorous, that 'tis like a Lie, which consists of water and Salt, Feculent, and adust Parts, which is discovered by the wandering pains and Ulcers. 3. *The associate of Flegmatick* somtimes, and vitious Humors, for a Vein being opened, the blood in Scorbutick people is covered over with a white Glew waxing Green or Yellow. 4. *After a peculiar manner corrupted*, after it hath remained there a long time; hence many labor of an obstruction of the Spleen and Melancholly Humors, who are not affected with the scurvy; and in those Regions where the collection of a black Humor from the heat of the Air is Familiar, the Scurvy is unknown. 5. *Contagious*, which you shal not find in other Melancholy Diseases. 6. *Produced from meats destitute of volatil Salt; and therefore* hindering spirituality in the Concoction from whence things Tartarous and Feculent stop in the first passages, and afterwards flow to the Spleen in such plenty, that they cannot be separated. Certainly meats hardned with Smoak and Salt, in which there is either little of volatil Salt, or what there was is wasted by Smoaking, so that nothing but the fixt Salt and Tartarous remains, a thick Air, and maritime places do conduce to its generation. The medicines which are given bruised and tasted, send forth a sharp vapor, subtile and quickly vanishing, which proceeds from volatil Salt, the same dryed or boyled work less, fresh and condite do worke more exactly. 7. *Primarily*, residing in the Mesentery, Caule, first Passages, and the middle places between the stomach, Liver and Spleen, and bordering on both Bowels. *Secundarily*, in the Veins of the whol body. *That*, for if the Chyle be less purefied by its spirituality, either by reason of the weakness of parts, or external error, it stops in them by reason of its thickness, by the arrival of more 'tis increased, and infects the same with its feculency and saltness which it hath conceived, it weakens and pollutes the neighbouring Liver, and the parts dedicated to concoction, both by contract, and sending forth of Fumes, from whence that quality is participated of by the same meats and Chyle. *This*, for that filth detained there for some time, by help of the serous Humor is carried to the Liver, from thence by the Veins and Arteries is distributed into the whol habit of the Body, the future Cause of so many Symptomes.

The CURE respects three things. 1. *The Diet*, which ought to be incisive, attenuating, absterfive opening obstructions, where note, the eating of wild Pidgeons is commended, that this Disease in some places is Cured by the exercise of Venery, perhaps by reason of the exsplendency of natural heat. Things Sugard and Milks must be avoided. 2. *Chirurgery*, by Vertue of which the basilick Vein, the median, Salvatella, or of the Ankles must be opened; but so, that we forbear if the spots have already appeared: if there be no Hopes of the Hemrrhoids, and a Feaver affect, let it be done. Let the Evacuation be sparingly least the strength be dejected. 3. *Physick*, by Vertue of which. 1. *The matter offending must be prepared*, the first passages being washt, so that we begin with the gentler; that we act with things more attenuating if the Disease be now grown strong, or the men live in a thick Air; That those things be given which work by their whol propriety, and be administred rather in juyces, essences, conserves, than in Decoctions and extracts, in which the volatil Salt of medicines doth vanish. *Things appropriate* are *English Scurvy-Grass*, which is most commended, or *Brooklime*, which hath somthing of moisture in it, *Horse-Radish, the lesser Celandine, Pennywort, Mustard, water Trefoil*, &c. *Of Compounds* are, *the Danick* electuary made of the berries which they cal multiber. *Forestus his Sceletyrbick* Syrup, and *Mynsichtus his Antiscorbutical* Syrup. The essence *of germander and Fumitory*. The Spirit and conserve *of Scurvy-grass*. Mynsichtus his *Tinctura Martis* strengthned with appropriate things, &c.

2. *It*

2. *It must be emptyed either* by the lower Parts, where take place Quarcetans *Tartarous Pills*; *or* by ſweats to diſcuſſe the remainder, which either in a Laconick Bath, *or* otherwiſe, are wel raiſed by *Mynſichtus his Theriaca Saxonica*, the eſſence *of Fumitory* with Salt of Wormwood; *or* by *Diureticks* given with appropriate Waters. 3. *The Parts*, as the Liver, Stomach, &c. Muſt be ſtrengthened.

The Symptomes, which afflict the ſcorbutical, are various, which affect for the moſt part by periods, are not al found in al people; ſome are more familiar, others leſs; but they are as follows.

I. *Difficulty of breathing*, and a ſtaitneſs of the breaſt by fits, which affects without a noiſe, hiſſing and cough; ſomtimes it hath joyned with it, a darkneſs caſt over the Eyes, faintings, and the Patients deſpairing of health. It *ariſeth* from Vapors or Humors *Sticking* in the Cavity of the Caul, and compreſſing the Midriff, which being ſtirred after vehement exerciſe make the Symptome more greivous. *'Tis Cured* with Thoracical and Antiſcorbutical means, to which add ſomwhat of *Eichſtadius* his Confection of *Alchermes, and Saffron.*

II. *An Itching, Tumor, and Putrefaction of the Gums*, for whenas their fleſh is ſoft and looſe 'tis eaſily corroded by the thinner and ſharper part of the Humor aſcending thither. It cheifly troubles Children, and affects with a blackneſs of the Teeth, Putrefaction and looſneſs, their holes being poſſeſt with the evil Humor, yet it ſuddainly vaniſhes, by reaſon of the recourſe of the Humor. *The Cure* of it is helped by appropiate Waters, if the mouth be waſht with them. By the Decoction of aſtringent plants in auſtere Wine, adding Spirits of Vitriol and Alum, which are moſt effectual.

III. *Plenty of ſpots in the Thighs*, which for the moſt part trouble thoſe of ful Age; firſt they are ruddy and like flea-bitings, by and by they become purple and ſomwhat livid, at laſt they decline to a black color. When there is many, Somtimes they invade the breaſt, the Neck, Arms, and Face: ſomtimes they vaniſh ſuddainly, ſomtimes laſt many yeares; ſomtimes they turne to ſcales; and by how much the more livid they are, by ſo much the more dangerous. *They ariſe* from the deſcending part of the Humor, thruſt by Nature to the more ignoble Parts. They may *be Cured* by things diſcuſſive and mollefying, as Baths *of Juniper berries, creſſes, Scurvy-graſs, Chamemel, &c.* if they *be ulcerous* they are hardly cured, whenas the whol thigh is gangrend by them.

IV. *A paine of the thighs*, which is diſtenſive, dul, breaking the bones, lying deep, grows Feircer towards night, by reaſon of the motion of the melancholy humor about that time. *It ariſeth* from ſerous humors, ſomtimes falling down from the head, and cleaveing to the membranes, ſometimes poured out of the veins from the ſeat of the filth by the crural branches of the vena cava, and inſinuated into the muſcles of the thighs. *'Tis mitigated* with a cataplaſme *of coagulated milk*, with flowers of chamemel, water creſſes, and Juniper beries boyled in milk. *'Tis exaſperated* by giving of fat things before the ſpots break out.

V. *A pain of the belly*, which ſomtimes doth ſo goad, that the ſick fal into a rupture of the peritoneum. It troubles by intervalls with a pulſe and urine ſcorbutical. Somtimes it laſts to the fortieth day, neither is it circumſcribed with the courſe of the collick gut. And truly with a depreſſion of the belly, that it is pulled inward with the navel, and this ſeems as if it were tyed to the loins; with a diſtenſion felt according to its longitude, a pulling of the right gut upwards, that nothing at al is voided. *It ariſeth* from an effuſion of that matter through the meſaraick veins, which do not open into the gutts, between the two coats of the guts. Hence is a diſtenſion, convulſion, pulling, drawing of the neghbouring parts into conſent, a pregreſſion of Feavers, whoſe Fewel is in the veſſels of the bowels. *It is cured* by removing the cauſe; by mitigating it by laxatives and glyſters, by which excretion ought to be provoked. The *elixir proprietatis* is very profitable.

VI. *A pain of the feet about the ankles and ſoles*, which is a fore-runner of the ſpots, and by reaſon of the thinneſs of the matter, it doth as it were penetrate the parts. 'Tis cured by a medicine made *of the flowers of elder two handfuls*, boyled in wine, adding two drams *of ſoap*, and applyed on a cloath to the part in pain.

VII. *Pains of the Hypochondries unbounded*, becauſe the wind hath no paſſage out, *Nephritical*, either becauſe the Matter deſcends by the emulgent veſſels to the kidneys: or becauſe being heaped up, and by the acceſſion of an external cauſe, thruſt to the greater veſſels, it flows down to the kidneys. *Of the*

Loyns, which sometimes arise from vitious blood conteined there, somtimes by way of a catarrh falling from the head by the veins upon the spinal marrow; hence the paines begin from the shoulders, and by degrees creep to the Loyns.

VIII. *Paines of the head*, which trouble about the evening, and are joined with a certain Feaverish heat, which vanish away in the morning sweats; they afflict those principally who contract this evil from the suppression of the hemrods. They arise from vapors ascending thither. They require, that *brooklime* be given in a greater dose, the quantity of hot things be diminisht, the hypochondries be anoynted with things opening.

IX. A *Gout*, concerning which note, that it is *wandering*, especially if cold topick medicines be applyed; that for the most part 'tis joyned, with a light palsey, with a paine ceasing and returning. That *it ariseth* from serous humors, thin and apt for motion. That 'tis wonderfully *to be observed*, that if a live worme be layed upon the place that is fullest of paine it skipps, winds and bowes it selfe about, wasts away and dyes. *Amongst sweaters* that is appropriate, which is prepared of *the roots of Devils bit* one ounce; *round birthwort* three drams; *the herbs of Sage, betony*, each one handful. *Southernwood, Rue, Perewinkle, Savine*, each one pugil; &c. See *Horstus* concerning the wandring scorbutical gout, Tom. 1. of his observations.

X. A *Palsey* which somtimes involves the the thighs, somtimes al one side. It *differs from the palsey of the ancients*, because some motion remains, 'tis interrupted, it assayles by little and little before it fixes, it follows no such fixt stupidity, paines of the colon and belly, tumors breaking forth in any part, and easily vanishing again. *It ariseth* from the scorbutical matter carried to the spinal marrow by that branch which is extended from the Aorta, not far from the mesenterical branch, and creeps to the back bone and its vertebraes. 'Tis *Cured* if the tendons be not rigid, the body being once or twice purged, by the use of brooklime and scurvy-grass; if they be hardned and rigid by emollient cataplasmes, premising *fomentations* of water, in which the leaves of Sage, Betony, Rosemary, with elder and melilot Flowers have been boyled.

XI. A *Convulsion and contraction*, which somtimes grows so strong, that the sick are not able to extend any joint, and they are drawn as it were round. 'Tis *joined* somtimes with a rigidity of the turning joint of the mouth, on which the lower jawe under the place of hearing is reversed, so that the mouth shuts close, that it cannot rightly be opened. *It ariseth* from the rigidnes of the tendons, when in that tartarous but serous humor, this being discust that is left and dryed. 'Tis *cured* by things mollefying and discussive.

XII. A *deepe sleep*, which somtimes afflicts, with a slow continual Feaver, somtimes with an intermitting; it comes with a fit, and that going away it ceaseth. 'Tis cured with *water-cresses* which grows in clear waters.

XIII. A *Palpitation of the heart, and swouning*. Concerning which we must know that it serves for the most part, when the patients rise in their bed the humors being stirred; somtimes 'tis so great, that they dye suddainly. 'Tis a certain sign of the scurvy, if it afflict in a disease that is final to the sense. It ought to be opposed by medicines given six or eight times a day with things antiscorbutical.

XIV. *Vomiting*, which is rather a vaine endeavouring, 1. To vomit, that hath no heavines or pain of the stomach going before, it is not taken away by medicines that strengthen the stomach, 'tis rather quieted with milky things, that do lenify the humors.

XV. *Too much spitting*, which *ariseth* partly from vapors raised up to the mouth, from the bordering places of the stomach; partly from meats corrupted in the stomach, and carried up to the mouth along the course of the membrane lining the gullet: partly from a serous humor poured forth from the spleen into the stomach through the *Vas breve*. 'Tis *prevented* by avoiding of sharp and hot medicines which diffuse the matter.

XVI. *A Flux of the belly both diurnal and nocturnal*, which brings forth compacted excrements, but exceeding the meat in quantity, sometimes of a green, somtimes of an ash colour. It *ariseth either* because the nourishment not attracted by the weakness of the liver, is corrupted, *or* because the serous humor flows back from the spleen to the gutts; *or* because the serum which might have been dissipated thorough the habit of the body in forme of a vapor by cold condensing the pores is driven back to the guts, or the vessels, especially in the morning time, when the body is open with heat, being bound up by cold, 'tis thrust back towards the greater vessels, and carries with it to the guts, whatsoever

whatsoever it findes in the way: and then *in the cure things astringent* are most *hurtful.* A dry dyet must be uted; wormwood wine diluted with the decoction of succory is good, or because whiles the ferous humor grows hot with the Feaverish heat, and cannot be exhaled, it is turned thither; and then syrup of Roses solutive and things of succory are good. 'Tis somtimes *bloody* but without paine, and with other signs of the scurvy. It *ariseth* from Feculent blood abounding in the veins, and poured forth into the guts through the ends of them.

XVII. *Feavers, which differ far from other Feavers.* For the sence of cold extends it selfe to six or seaven hours, the pulse is slow, weak, unequal in the declination, great and hard in the vigour, the urine is as we have said formerly. Somtimes they trouble thrice, somtimes four times a day; most commonly they are mixt of the type of a continual and tertian. The continual if they be exasperated by purging medicines or hot potions do kil.

XVIII. *A dropsy* which afflicts both with a harder manifest tumor, and distension of the spleen, liver, or belly, and with a greater difficulty of breathing, than otherwise, which after the use of purgers doth most of al torment, and because it proceeds from thick vapors, they being discust it ceaseth.

XIX. *An Erysipelas,* Which somtimes molests every week, somtimes every month, it proceeds from ichorus humors corrupted after a peculiar manner. *In the cure* the water of elder flowers with Carduus water is good.

XX. *Ulcers* which are dry and yeild no matter or filth, they trouble those most that are of a cholerick temperament. They possess not only the thighs, but other parts also: somtimes they become so gangrenous, so that they feel not iron inflicted on them, they ought *to be cured* without any biting or pain; brooklime alone boyled in drink, layd on them twice a day doth much good, and also the ointment *of diapompholygos* in great putrefaction, some *Mercury precipitate*, or *spirits of vitriol* must be mixed with it.

XXI. *Hard bunchings in the whol body,* & great tumors which stick in the groin, the glandulous parts of the body, like unto muscles, they are without paine while the patients are quiet, with paine when they walk. If they break forth suddainly, and by and by vanish they presage a palsey. *A cataplasme of the root of the greater comfry, of bryony, wormwood, the crum of white bread* boyled in milk, is commended in the cure.

XXII. *An Atrophy* which proceeds at first because the faculty is disapointed by reason of vitious nourishment, in process it ariseth by reason of a vitious disposition imprinted on the parts by the defluxion of humors. *For the cure* is commended *goats milk,* if the goat be nourisht with things antiscorbutical. I omit the rest. See concerning this disease, *Sennartus, Horstius* and others.

Title, 8. *Of the affects of the Kidneys.*

Chap. 1. *Of the diseases of the kidneys.*

Article, 1. *Of the Straitness of the Kidneys.*

THe diseases of the kidneys are, *straitness, inflamation, the stone, wounds and ulcers.*

The straitness is an obstruction or compression of the vessels in the kidneys induced by its causes.

The Signs of it are, the retention or paucity of urine, and from thence a sence of distension and hevines about the loines, in one, or both sides, &c.

The Causes shal be explained in the differences, the continent is put in the definition.

The Cure varies according to the nature of the differences.

The differences are taken from the causes inferring the obstruction or compression.

I. One is from *a tumor, Phlegmon, Scirrus, compressing them, too much dryness* whiles the substance is wrinkled and contracted; which wil discover themselves by their signes; although the last is very hardly known.

II. Another *from humors* viscous, thick, clammy, which *is known* by their redundance, the absence of pain, and a Feaver. *'Tis cured,* 1. By emptying by stool or by vomit, 2. By things detersive, incisive, and diuretick. The waters of *parsly, rest-barrow* with *Fernelius* his syrup *of radish* are commended. The spirits *of salt,* tartar *vitriolate* with a Julep of violets, &c.

III. Another is from *clotted blood* which hath fallen out of its vessels, and concreted there. *'Tis known* from hence, that pissing of

blood went before, and causes enducing it, as blows, falls, &c. *'Tis dissolved* with *chervil* water, *dyers madder*, with the seed of cresses, sperma ceti, and mummy, made into a pouder.

IV. Another is from *matter* which is generated there, or flows from some other part. It *is known* by the signs of an ulcer or impostumation in the kidnies, and the urine sometimes purulent. *'Tis cured* by absterfives.

V. Another from *the stone*, of which shal be treated hereafter: in the meane while observe *that gravil* doth sometimes do it, which *either* is produced in the proper substance of the kidnies, which is *known* from hence, that 'tis hard and red, and thence rapt with the violence of the urine running is carried into its hollow part, afterwards is thrust down to the bladder, and when the water is made it doth sinke, and is hardly bruised with the fingers. *Or* doth arise from the adustion of humors in the veines and liver, that which is voided in the declination of feavers both acute and chronical; *'Tis known* from hence, that it doth not subside, but is mixt with the substance of the urine, cleaves to the chamber pot like pouder, and is easily bruised with the fingers.

Article. II. *Of an inflamation of the Kidneys.*

An inflamation of the kidneyes, or nephritis, is a swelling of them from blood poured forth into their substance, and there putrefying, joyned with a vehement paine, fibrous or gravelly, excretions.

The *Signs* are a heavy and extensive paine about the loins to the first vertebræ, which *differs from the collick* in these, because it doth not wander into the middle of the belly or about it with a murmur, doth not alwaies grow gentler the belly being purged, by its cruelty and feirceness it puls the peritonæum; 'tis very thick and frequent. There is a continent inordinate feaver, which somtimes increaseth, somtimes abateth, and about night is exasperated: a subvertion of the bowels and stomach. A casting up by vomite, first of al of flegmatick things, afterwards of colerick; a scarceness, thinness, waterishness of the urine when the evil begins, somtimes a suppression, by and by that plenty and thickness with a compulsion to pis from a certain sence of heat; A stupidity and numness of the next thigh, by reason of the compression of the nerve. A difficult raising of the body; lying down upon the sick side mitigates the paine, upon the contrary exasperates it.

The *Cause* is blood, either pure or mixt, either heaped up in the kidnies by way of collection or thrust thither by way of fluxion, either from the whole body, or from a part, as is often said elswhere.

The firmness and hardness of the kidneys seldom give *occasion* for a fluxion, oftentimes diuretick medicines doe, which carry the blood to the kidneys.

The CURE is *easier* if the hemrods come upon it, if the impostume being broke, a white, smooth, equal matter, not stinking, be voided through the passages of the urine if it tend to resolution. *Very difficult* if the Impostum being broke after suppuration, the matter take its way through the emulgents to the liver and guts. If it tend to induration. *Past hopes* almost if there flowe a white, thin, or purulent water, without the remission of the feaver and symptoms, and with a wasting on the legs and thighs. *'Tis ordered* as in other inflamations, yet *we must observe*. 1. That things moderately cooling and astringent be used with things anodyne for repulsion; outwardly indeed, least the humors subsisting about the external and fleshy parts be struck inward into the kidneys; but inwardly, least when they begin their astriction about the belly, or liver and veins, they should either cast down the blood to the kidnies or by straightening the narrow passages, cause an ischury. 2. We must abstaine from purgers because they inflame and trouble the humors, yet gentle and benigne must be given, if choler stick in the mesaraicks and stomach, least it be carried thither. 3. Diureticks must not be drank unless when the inflamation is perfectly alaied. Here takes place *tartar vetriolate* half a scruple, with the Julep of roses and cinnamon water two drams; and other things.

The *Differences* are taken from the part affected.

I. One is in the *Right kidney*, in which the loins on the right side are payned, the paine ascends more to the liver, the right thigh is benummed.

Another in the *left*, in which the paine descends to the bladder.

Another in *both*, in which the symptoms oppress in both sides.

II. One is in the *fleshy part of the kidney*, in which a greater heavines affects.

Another in *the parts in which the arteries are terminated*, in which a beating paine urgeth.

Article

Article. III. *Of the Stone of the Kidnies.*

The stone of the Kidnies, is a solid and stony substance, mucilaginous, slimy, tartarous, endued with a stone making faculty, arising in the kidnies by the help of heat.

The *Signs* are principally five, 1. A *Pain*, which affects in the loyns, causeth a sence of heavinesse, by reason of the substance of the kidnies void of sense: in its descent into the ureters tis increased, by reason they which consist of a crosse and thick membrane, are distracted, especially if the stone be great, craggy, and rough. 'Tis distinguisht from the chollick, because 'tis neither so grievous, nor so large, because 'tis fixt, and is circumscribed with the region of the kidnies, and if it fal into the bladder, it follows the course of the ureters, and affects not with winde. 2. *Bloody urine* by reason of the wounding of the parts through which it passes, which at first is little and wateriſh, by and by suppreſt, the stones being removed out of thekidneys, tis turbulent, and having a sandy sediment. 3. *A Numnesse* of the thighs which hapens not in the paine of the chollick, because the muscle on which the kidney lyes, and which is appointed for bending of the thigh, and is inserted into the inner part of the thigh, is compreſt. 4. *A retraction of the testicle* of that side, by reason of the retraction of the neighbouring vessels, which lead to the stones, and are inserted in them. 5. *A nauseousnesse and vomiting*; for the kidnies are knit to the stomach by the mediation of the peritoneum, whose membran each bowel participates, and two nerves of the sixth conjugation issuing from the stomach are implanted into the internal coate of the kidneys. *The voiding of gravel* is a signe of the stone in making.

The *Cause* is not *flegme*, for many are troubled with that, who have no commerce with the *stone-growing juice*; hence those that have the stone oftentimes make water, which is like mucous matter, and presently concretes into a stone. But this *proceeds* from the fæculency of the nourishment, which if it be retained, glues it self to this or that part, by the new arrival of matter is dayly increased, being increased by degrees it is dryed, and where it finds a viscous, thick, earthy matter, it coagulates it, and afterwards the internal spirit of the microcosmical salt comming, the which by reason of its natural viscousnes, or clamminesse that Tartar easily receives, and hides within it self, at last 'tis Coagulated into a perfect Stone.

The CURE is *Difficult* if bubbles for some daies are perceived to continue in the Urin, because they shew a great quantity of Tartarous and mucilaginous Humors, together with wind doth abound in the Kidneys. If from Urin remaine subtile, and last so for some time, becauſe it argues a great obstruction. If the it an Ulcer of the Kidneys ensue. If the Patient be of Nephritical parents. It *respect.* I. *Prevention that either it be not generated, or do not encrease*, and then. 1. There must be care had of the Diet, in which meat and drink making for the stone must be eschewed; the contrary meats made use of amongst these are commended, asparagus moderately boyled, with Oyl of Vineger and Butter, taken at first Course, the fruit of *Eglantine*, *the stones of the same* boyled in broths, *Chervil*, *Radish*, *Oyl of Olives and sweet Almonds*. 2. *The matter collected must timely be emptyed, that it do not concrete.* By vomits given every month twice or thrice, by lenitive Medicines, especially *Cassia*, *Turpentine*, and those that purge water. By things that break it, if any thing be concreted, amongst which are commended the Decoction of *the Nephritical wood*, *of Alehoof*, the Juyce of *Speedwel* with the Water, and other things, of which hereafter. 3. *The Reins must be reduced to their state*, and here bleeding prevails, if the Liver hath raised a hot distemper in them, the administration of Strawberry, Purslain, Barley Water and anoynting with cold Unguents. II. *The taking away of the stone generated*, which is performed, 1. By clensing of the first Passages by gentle Evacuaters, corrected with things that discuss wind. 2. By opening a Vein in the Arm, if there be a plenitude in the whol body, and the pain be great; of the Anckle, or Ham, if it be fallen upon the affected Part. 3. By Relaxing and making slippery the Passages, inwardly with the Syrup of *Marshmallows*, *Liquorish*, *Violets*. Outwardly *with an Oyntment* Compounded *of Oyntment of Dialthea*, two drams; Hens Greaſe, new Marrow of a Hart, each one dram; Oyl of White Lillies, one dram; of Scorpions, two scruples; Oyl of Wax distilled and spirits of Turpentine, of each one scruple; Wax, and Saffron a little. *By a Bath of sweet Water*, in which may be taken, Oyl of

fresh

fresh Almonds, two ounces; Oyl of Turpentine, six drops, With a draught of Warm wine. 4. *By Removing, Breaking and expelling the Stone* by Medicines that wil do that: *the more Excellent* of simples are, the magistral of *Tartar Vitriolate, of Crabs Eyes, of the mandible of a Pike, and the Jewish Stone.* Lapis *Prunella*, the essence of *Crystals*, the *Nephritical* Stone, the Aqua Vitæ of *Juniper.* Horstius, T. 1. P. 481. Of compounds, *Zacutus* his Confection or conserve of *the Nephritical Stone.* l. 8. c. 16. *Mynsichtus*, his *Nephritical* liquor, Armament. P. 338. *The mixture* of magistral of Tartar Vitriolate dissolved, Crabs Eyes, Lapis prunella, the volatil Salt of Amber, and *Untzerus* his Saxafrage Water. *The generous Wine of the same Author*, in which a sharp radish with the Rind taken off, and cut into thin slices, was steeped a whol day, given with the magistral of Crabs Eyes and spirit of Salt. *The mixture of* Muffet *the English man*, Ciftæ Medicæ, p. 34. *Of Libavius* of white Saxifrage water, with Sugar of Violets and Roses streined, with a little Spirits of Vitriol. *Zuingerus his expeller of the Stone*, Cist. Med. p. 35. 3. *The removing of the pain*, which is performed by the Oyntments formerly prescribed for relaxing of the Passages, with a half bath prepared of things anodine, *Cratoes Cataplasme* of pellitory of the Wal, Parsly, Onions, &c. 4. *The Discussion of wind*, if there be any. See concerning the Stone, the excellent & most satisfying Treatises of *Untzerus, Franciscus Collutius, and Beverovicus.*

Article, IV. *Of an Ulcer and Wound of the Kidneys.*

Concerning an Ulcer of the Kidneys, Let it suffice to have observed these things.

I. That it doth very seldom happen from an *Impostumation of a phlegmon*, by the Acrimony of the matter flowing thither corroding the Kidney, by a blow, or fal breaking the Veins; yet if it do happen, the Cure doth require, that the falling down of Humors be stopt by Diet, by bleeding and purging; they already fallen must be temperd with coolers, nephritical means: must be emptyed with turpentine reduced with the yolk of an Egg into a liquor, or with the pouder of liquorish into a Bolus.

II. That it is alwaies truely Caused by *a Stone restrained within it*, which either by its weight doth bruise the Kidney, or by fretting diminish and corrode it. *Then* the Urin before it begins to be purulent, becomes bloody, especially after exercise and labor; none or an obscure feaver troubles them. If at any time the matter be stopt by the obstruction of the Head of the Ureter, that by degrees either redounding by the emulgent into the greater veins will defile the blood and habit of the body; or heaped up in that place, wil distend the Loyns, from which the Skin being opened it wil flow much and a long while.

III. *In the Cure the Decoction of Parsly*, discribed by *Doringius in his Mithridatotechina, p.* 150. Bears the Palm from al others.

Concerning *a Wound of the Kidneys*, it shal suffice to have noted these things.

I. *That it is known*, by the Situation, suppression of Urin, or difficulty of it, by its bloodiness, by a pain extending to the groins.

II. *That it is divided* into that which is in the *Superficies and fleshy Part*, and then much blood flows forth, the Urine goes not forth; the stronger agglutinatives may presently be administred: and into that which *Penetrates even to its Cavity*, and then the blood goes forth with the Water. *In the Cure* the blood must be stopt. This stopping, things agglutinating must be given inwardly and laid upon it; and here is of force, unguentum *Sanctum of Andreas a Cruce*, which see in *Sennertus*, &c.

Chap. 2. *Of the Symptomes of the Kidneys.*

COncerning the Symptomes of the Kidneys, Viz. *The Separation of the serum hurt, and Pain*, few things present themselves.

I. *The separation of the Serum*, is hurt by the fault of the emulgent Vessels and Kidneys, which *either* labour of a cold distemper, and then the Urine is not suddainly suppresst. *Or* of a streitness, of which formerly. In the Cure, Diureticks must be given an hour or two before meat.

II. The Nature of *the Pain* may be fetcht from the Chapter of inflamation and stone of the Kidneys. At the seat of the Kidney 'tis fixt and firm on either side, unless that sometimes

times 'tis extended either to the Hip, or to the Stone of the same side by the Course of the ureter. They that are accustomed to it, by reason of the dilatation of the ureters, are not so easily affected, unless perchance the stone be thick and rough; but they who are not accustomed to it, or have been seldome and gently troubled with nephritick pains, are tormented with the least stone, &c.

Title, IX. *Of the Affects of the bladder.*

Chap. 1. *Of the Diseases of the Bladder.*

Article, I. *Of the Stone of the Bladder.*

THe Diseases of the Bladder are, *The Stone, Inflamation, Ulcers,* to which ought to be added, *the streitness of the passage for Urin.*

What *the Stone of the Bladder* is, may be perceived by the definition of the Stone of the Kidneys.

The SIGNES of it are, an Itching and sharp pain in the Neck of the Bladder, the Pubes and Perinæum, which by progression and distention of the Bladder, torments with great tortures, the Patients are wont to scratch their Privities and often to distend them, and make Water by drops with exceeding pain, and that while the Stone is gathering together is thin and clear, of somwhat whitish color, but being concrete, 'tis wont to settle like unto Oyl, with a gravelly sediment, white, like to scabs, if the Stone be brittle.

The CAUSE, *and* CURE, must be fetcht from the Chapter of the stone of the Kidneys. If it cannot be broken and expeled, it must be cut out, concerning which see Chirurgions. *For breaking of it* serves *the Compositon* of Salt of white Tartar, one ounce; and Parsly Water, one pound, mixt together, and streined through streining paper, dyed of a yellow color with Orange Pils; also the *Pouder of Palmer Worms,* concerning which consult with the peculiar treatise of *Laurembergius.* And also *the blood of a Goate,* nourisht with Plants that break the stone, distilled, taking at meat those stuffings which ought to be made of its Kidneys, and other Bowels and Guts. *For mitigation of the Pain a Bath* is good, which must be followed with an unction of the God, Pubis, and perinæum, with *the Compound Oyl* made of Oyl of Scorpions, bitter Almonds, the Fat of a Cony and Hen, of each one ounce and an half; and the Juyce of Pellitory of the Wal, two drams.

There meet us some *Differences* of the stone.

I. One is *smal and light,* in which a vagous and wandering tickling afflicts about the pubes and perinæum, the which is easier broken.

Another *a little bigger,* in which there is felt the weight of some heavy thing lying upon it, so that going through uneven places is difficult and painful, and dancing much more difficult, they piss often, and the Urin can hardly be kept in, which is white, thick, turbid, with a purulent Sediment, or like to the snivel of the Nose; when they should piss the stone driven in the way, the flux of Urin is intercepted, there is a most sharp pain towards the latter end of pissing, when the stone stirred up by the Course of the Urin, as if it were comming forth, doth more violently compress the Sphincter muscle; at other times it affects the whol passage of the Privity, somtimes the Nut. Striving to piss is accompanied with a desire to go to stool, because the greatness of the stone from the perinæum stimulates the right Gut, as wel as the Neck of the Bladder. This can hardly *be Cured* any other way than by cutting.

II. One is *concrete,* which sends no gravel from it in the Urin. Another *not concrete,* in which the Urin doth cast off some gravel and that either white or red, which must be distinguished from that of the Kidneys, by other signs of the stone of the Bladder.

III. One is which grows in *the bladder it self,* to which that said before accords. Another *which descends from the Kidneys through the Ureters into it,* and then signs of the stone of the Kidneys went before, there was a pain reacht from the Kidneys to the bladder, according to the length of the Ureters, the Nephritical pain is either ceased, or troubles little. This some do beleeve may be broke by the Indian Plant called by *Manardus, Payco,* and by other things.

IV. One is *which doth not cleave to the Bladder,* and therefore may be taken forth more safely by cutting. Another *which cleaves*

to

to the top of the bladder, and hangs down as it were from it, and then all the symptomes reckoned formerly, are more obscure, there have been those seen who have carried it without any paine: nay it can by no meanes almost be removed without injury to the patient. Of which see *Tulpius observat.* l. 2. c. 5.

Article, 2. *Of an inflamation, scab, ulcer and fistula of the bladder.*

An inflamation of the bladder, doth not so much possess the substance of the bladder, which is thin and bloudless, as the sphincter muscle of the neck of it.

The signes of it are, a bitter paine in the perinæum with redness and heat, a suppression of the urine with a great endeavoring to pisse, costiveness of the body (becaus the right gut is streitned by the greatness of the inflamation) a distension of the pubes and pecten to the navel by reason of the abundance of water.

The cause is the same as of other inflamations.

The cure is difficult, becaus the affect is deadly for the most part about the seventh day especially, a Feaver comming, and the stoppage of urine, and stools: yet if it be gentler, and the inflamation being changed into matter, the impostumation break inwardly, and is emptied by the urine, there is better hopes: and also, an erysipelas arising about the superficies of the skin, and plenty of water being made, sometimes tis suddainly dissolved. *'Tis ordered* after the manner of other inflamations. *Repellers* must not be applyed long becaus the bladder is membranous, and is easily bound up, the urine suppresst, and the nerves hurt.

II. A *Scab of the bladder is known* by an itching in the pecten, by the strong smel of the urine, by a brainy sediment residing at the bottom. *It ariseth* from sharp and salt humors corroding the internal superficies of it. *'Tis cured* in old folks hardly, the humors are partly to be emptyed, partly qualifyed by the four cold seeds, violet flowers, strawberries, either taken inwardly, or outwardly injected through the urethra.

III. There is no need to say what *an ulcer of the bladder is,* it appears from the former.

The signs of it are, scales and matter, which flow forth only with the urine, and sink in it, and so 'tis distinguisht from an exulceration of the urinary passage, in which the matter and filth, either goes before the urine, or appeares presently at first comming forth, or also flows forth without urine. There is a continiual torment about the bladder, pubes, and perenæum; the urine also is thick, and sometimes mixt with matter, sometimes with blood, &c.

The causes are divers, of which in the differences.

The cure is *of little hopes,* both becaus the bladder is membranous, and becaus the urine which is biting by its continual running down, hinders its consolidation. *'Tis ordered* after the manner of other ulcers.

The differences are taken cheifly from the causes.

I. One is from *cantharides,* and *then* if it be lately, we must give milk plentifully, by and by consolidate. If it be inveterate, it must be cured as other ulcers.

Another is from *sharp urine,* which the use of pure wine and hot meats hath caused, and *then* we must act with cooling diuretick.

Another from *sharp or salt humors, as it were knawing its internal superficies,* and then, 1. *We must empty* with cassia and turpentine, 2. *We must temper them* with water lillies, lettice, endive, &c.

Another from *the stone,* of which formerly.

II. One is in *the bottom,* in which the pain is felt about the pubes.

Another *by the urinary passage,* in which at the time of pissing the pain is felt more; and especially when they begin, and when they make an end to pisse.

IV. The cure *of a fistula,* see in *Langius,* l. 3. epist. 5.

Article, 3. *Of the straitness of the Urinary Passage.*

The straitness of the urinary passage, is an interception of the same proceeding from its causes and inducing a stoppage of urine.

The signs, causes, and cure, If you consider this affect in general, have nothing singular.

The differences are taken from the causes.

I. One is from *obstruction,* which is caused, 1. Either from *the stone,* which *is known by this,* that signs of the stone were precedent, the urine is sometimes made freely, sometimes the stone falling from the bottom of the bladder into its orifice, 'tis suddainly stopt, the pain urgeth most at the root of the bladder; *The cure* consists *in removing* of the same, *by* shaking of the thighs if it be great that sticks at the orifice

orifice: *by* bringing it out of the extremity of the urinary passage, if it be smal, and can be moved out of its place: *by* laxative fomentations, and things that break the stone, if it cannot be moved out of its place with the fingers. 2. Or *from clotted blood*, which is known by this, that a wound or rupture of a vessel went before the blood was poured forth, with the urine; outwardly common ashes may be applyed with honey. 3. Or from *matter*, which either was in the kidneys, or bladder, or by the breaking of an impostumation in the upper parts was carried thither. 4. Or from *thick and viscous flegm*, and then the urine is almost totally suppreſt, there are present signs of flegm; we must use things incisive and attenuating.

II. Another is from *a constipation*, by a caruncle, a callosity, a wart, growing in the passage of the urine, which *is known* by this, that neither the urine is pist out freely, nor the seed sent forth, great pains are present; 'tis tryed by a catheter or wax candle put in. But because the urine alwaies flows alike from the stone, because 'tis never almost wholy intercepted by a flegmatick obstruction, upon that account 'tis known. *It is cured by things that wast, and consolidate.* Of those is commended, premising universals, *oyl of Mercury* with a little sugar of saturne and camphure, (amongst which I reckon the decoctions of China and sassafras) *the pouder* made of mercurius dulcis half an ounce; crude antimony one ounce; tutty prepared two drams; of the use of which consult *Hartmans* Chymiatry.

III. Another is from *compression*, which is caused, *either* from the coldness of the right gut; or from the inflamation of the neighboring parts, or from the swelling of the yard, and neck of the bladder, or the contorsion of the bladder; or the falling down of the bladder into the Cod. *The Cure* must be directed against the diseases.

Chap. 2. *Of the symptoms of the bladder.*

Article, 1. *Of the incontinency of the urine.*

THe *Symptomes of the bladder are, incontinency of the urine, a diabetes, an Ischury, a Strangury, dysury, bloody pissing, purulent, &c.*

Incontinency of the urine, is a sending forth of the same, by reason of the resolution of the sphincter muscle, or compression of the bladder, without any sence of acrimony and paine, beside the wil of our command.

There is no need of *Signs* in an affect so manifest.

The cause is cast upon the resolution of the sphincter (of whose causes in the differences) and the compression of the bladder; which comes to pass, *either* from a convulsion of the muscles of the belly, *or* from the greatness of the young one about the last months, *or* from a tumor placed upon the bladder: of al which respect must be had in the cure.

The cure varies according to the nature of the Differences.

The Differences are taken from the causes inducing the resolution of the sphincter, and the time.

I. One is from a palsy of *the nerves*, which from the loines are inserted into it, by reason of which it cannot contract it self: and then 'tis harder to be cured, if the spinal marrow be affected or the muscle it self wounded. The causes by reason of which a palsy comes, must be inquired from its chapter, and as they vary, so the cure must be varied.

Another is *only from the laxness and softness of the sphincter*, and *then* the patients can neither endure the acrimony, nor abundance of urine, when the animal powers are asleep. For the cure are commended, *Diacyminum*, *Frankincense* drunk in wine; *the throat of a cock*, rosted and dryed, that it may be ground to a pouder, given at night in astringent red wine. *The bladder of a goat* dryed in an oven and poudered given likewise one dram weight.

II. One also *is diurnal*, which afflicts the apoplectical and paralytick.

Another *Nocturnal*, which is wont to happen to children, by reason of the cold and moist distemper of the muscle, or not thinking of it: in succeeding yeares, the muscle of the bladder growing dryer and stronger it ceases. By reason of continual drinking for the most part it follows those of riper years to their death.

Article, 3. *Of a Diabetes.*

A Diabetes is a most quick and plentiful pissing of the drink unchanged, arising from the intense attractive faculty of the kidneys, and afflicting with a strong perpetual thirst.

The *Part affected* is the kidnies, yet so, that the bladder also oppresst with the plenty of urine, consents.

The *Signs* are plentiful pissing, little or not at al changed, a strong thirst, nor any satisfaction from the taking in of any liquor, a paine, pricking, and heavinesse about the loins, a coliquation of the whole body, the belly dryed and withered.

The *Cause* is controverted amongst physitians, we hold 'tis the intense attractive faculty of the kidnies, arising from a very hot distemper of them, which is caused by an afflux of sharp and biting humors, viz. choller and salt flegme, impacted in the substance of the kidnies: the too great largeness of the emulgent vessels and ureters, the heate of the liver, pestilential feavers, the weakness of the stomachs retentive faculty, doe help. Thus when the kidnies draw plenty of serum from the veins, and cannot contain it by reason of their weakness, they send it to the bladder, the veins again draw from the liver, this from the stomach, whence the orifice of this being emptied and dryed, there ariseth a continual thirst, &c.

The *Cure* is *too difficult*, and for the most part passeth into a hectick, and dryness of the whole body. *'Tis ordered.* 1. By things that correct the distemper of the kidnies, where bleeding also takes place. 2. By things that dul the acrimony of the humors, and make the blood, and with it the serous humor flower to motion. *The essence of crocus martis* described by *Crollius*, *Baths made of smiths water*, drink, but little of the *decoction* of harts-horn, salt of corals, &c. are thought to be prevalent.

As Concerning the *Differences*, 'tis only one.

One is an *exquisite diabetes*, of which we have now treated.

Another *spurious*, which is nothing else but a colliquative flux of urine, while the juyces in the veins, or in the substance of the body are changed into a serous matter, which attracted by the kidnies, slides through them, and descends to the bladder.

Article. III. *Of an Ischury.*

An Ischury is a suppression of the Urine by reason of the disappointment of the expulsive facu'ty, so that none of it can come forth.

There is no need of *Signs* in an affect so manifest.

The *Cause* is the disappointment of the expulsive faculty, the causes of which we shal explaine in the differences.

The *Cure must be hastened*, least it regurgitate into the whole body, oppresse the liver, infect the blood, and cause a danger of suffocation. Oftentimes the humors putrefie, feavers are kindled, and unless they pisse before the seaventh day, they dye. *There is no cure* if it arise by reason of the deadly concourse of fits; if it come from a wound of the back bone or luxation of its vertebræ. If the hickops or a tenesmus come upon it. *It respects.* 1. *The symptom it self*, that the urine be provoked, here meet us, a pressing of the belly with holding of the breath; putting up of a catheter, unless an inflamation doe hinder, or of a wax candle dipt in oyl of sweet-almonds; suppositories and sharp glysters, by reason of the communion of the right gut with the bladder, *fomentations* of the pubes and perinæum with the decoction of pellitory of the wal, melilot, chamemel. *Cataplasms* of horse raddish bruised and fryed in butter. The juice of a cray fish baked and strained through hair, given in wine. The salt of beane cods. *The decoction* of buck-thorn in wine; of gilly flowers with their root dryed in the shade with wine of quinces. 2. *The Causes of the Symptom*, of which in the differences.

An Ischury *is divided* twofould.

One from *Diseases of the bladder*, which is known by this, that a continual desire to pisse doth oppress them, the pubes is distended and pained by the collection of abundance of urine by putting in a catheter plenty of urine flowes forth with ease. Those *diseases are.* 1. *A stupidity*, by reason of which it feels not its spur, either by reason of a palsey and obstruction of the nerve, or the aversion of the spirits; and *then* although the bladder be ful, there is no desire to pisse, nor no paine felt. 2. *A cold distemper* contracted from cooling causes, and *then* such causes went before; diureticks must not be used unless the body be purged first. 3. *A streightness*, either by *reason* of a tumor of the muscle compassing the neck; or by *Reason* of a stone, and other things formerly alledged, if from this, 'tis somtimes cured with an emulsion of the seeds of purple violets made with speedwel water. 4. *Too great an extention*, & *then* the urine hath been retained too long against the wil, we must act with fomentations of pellitory of the wal with oyl of sweet almonds.

Another is from *the streightness of the urinary*

nary passage, which is known from hence, that the urine is not voided by compressing the bladder, and that a catheter is difficultly put up. See *the Cure* in its chapter.

II. One is *exquisite*, of which we treated even now.

Another *Spurious*, which is knowne by this, that the bladder is empty, so that no water flowes forth though a catheter be put up. There is no heavinesse or distention, or paine perceived about the pubes though you presse it. It *ariseth* either *by default of the Kidnies*, which do not attract, or expel the matter of the urine, either by reason of its owne diseases, of which formerly, or by reason of some external error, viz. because the serum is either consumed, or converted to some other parts; Or *by default of the uriters* which either are bound up, or obstructed, and then the patient was subject to the paine of both kidnies, there is a great heavinesse in the loins, and somtimes a vehement paine torments every where, there is little or no desire to make water. But the *specificks* in this disease are thought to be, *earth worms* in number five, drunke with sweet wine. *An egg-shel* purged, from which a chickin hath been hatched. *Goats piss* dranke warme, *its* caule and guts applied to the belly, &c.

To *an Ischury* belong, *A deminution of the water*, which in malignant and acute feavers is therefore bad, because it is a signe that the nerves are affected. And the *slowneß of urine* when it is voided at longer distances than it was wont; because they differ from an ischury only gradually, therefore we wil treate no more of them.

Article. IV. *Of a strangury.*

A strangury is a voiding of urine by drops, made with or without paine, and a continual urging to piß, arising from a continual goading of the expulsive faculty of the bladder, by reason that the sphincter is affected, or from the weakneß of the retentive faculty oppressed with the least burthen.

The *Signs* of an affect so manifest are evident.

The *Cause* is explained in the definition, viz. the irritation of the expulsive, or weakness of the retentive facculty, but from whence they are, shal be expreſt in the differences.

The *Cure is of little or no Hopes almoſt*, if it come upon an Iliack passion proceeding from an obstruction of crude and thick Humors, no Feaver following it, which may attenuate the Humors. *'Tis ordered* according to the diversity of the Causes, of which hereafter.

The *Difference* is taken from the Causes.

I. One is *with pain* proceeding from the irritation of the expulsive faculty, and it *ariseth*. 1. From the Acrimony of the Urin, which either is inferd by *external Causes* as meat and drink, hot and Salt, new and dreggy drink, which when it cannot be concocted commodiously, and hath a power to ferment the Humors, and loosen the Belly, if it be quickly carried to the Kidneys, 'tis carried crude to the bladder, and stimulates it. *Then* drinking of Spanish or Mallego wine, does good, Nut-megs, Goates Fat put on the Navel. Or from *internal*, Viz. *Sharp Humors*, either produced there, or sent from elsewhere, which being viscous do by their clammineß stick to the Orifice of the bladder, and somtimes by their long continuance exulcerate the same. *They are known* by this, that the Urin is red and Yellow, there is a sharp biting felt, with a heat and thirst. *The Cure* requires *emptying* by Cassia and Turpentine. *Tempering* by coolers and moisthers, and a bath of sweet Water. *Promotion of the Urin*, By Salt of Acorns, of bean stalks, half a scruple; Oyl of Wax, three drops; in the Decoction of red Vetches. By *the pouder* of stones squeezed from the Heads of Snails, given in Wine. 2. *By matter* sent from the Liver, Kidneys, or else where, and then some of it wil appear in the Urin; whey with Sugar of Roses is good. 3. *From the Stone*, which Excoriates the bladder, to which we must have respect. 3. From *an inflamation*, of which was spoke formerly. 4. *From the affects of the neighboring Parts*, for upon an Inflamation of the right Gut and Womb, and purulency of the Kidneys there follows a dropping. Upon the falling down of the Womb, the Urin comes by drops, and is a little biting.

Another is *simple and without pain*, which *is known* by a white, Watry Urin, by the Age, Complexion, cold course of Diet, pregression of a burning Feaver. It *ariseth* either *from the refrigeration of the bladder it self, and the Muscle shutting its neck*, and then Diagalanga, Mithridate, &c. are wel taken inwardly.

Oyl of Rue is wel outwardly applied. Or from *a Compression of the bladder*, which is wont to happen in great Bellied Women.

Article, V. *Of a Dysury.*

A Dysury is a making of burning Urin, somtimes little, somtimes much, with pain, without interruption, arising from Causes both external and internal, affecting the Urinary passage.

The SIGNS are evident, for the pain is easily perceived by the Patient.

The CAUSES are whatsoever can dissolve the continuity of the Neck of the Bladder, or of the urinary Passage, or Cause pain in pissing.

The CURE is *Difficult* if it fal upon Decreped Old men, if a suppression of the Urin happen with it. It *respects*. 1. The Cause, which must be moved by the aforementioned emptyers, which ought to be followed with essence of Turpentine, one dram; with Parsley water, and Syrup of Citrons. 2. *The Pain*, which is mitigated with warm Milk cast in by a Catheter, by dipping the privities in a Vessel ful of Milk, by a Cataplasme of Pellitory of the Wal with Oyl of Scorpions, &c.

The Causes raising the pain do afford us *the Differences*.

One is from *things external*, as Cantharides, and then Milk is good; from Poyson, and then we must act with things alexipharmacal.

Another from *internal* which, are, 1. *The Acrimony of the urin*, of which formerly. The water of bean flowers or its fresh Cods given with Syrup of Liquorish or Poppies, six ounces weighe before meat is good. Also *Fallopius his Electuary*, in *Schenkius* in Exotor. Experim. Cent. 4. 19. 2. *An Inflamation*, whose pain is encreated the bladder being contracted to send forth the Urin, and compressed after the emission, which oftentimes an exulceration follows. 3. *A Stone* striking against the Neck of the Bladder in pissing. 4. *The Seed* moved in men but sticking in the Passage, and by an Acrimony contracted corroding the Passage, which is wont to happen in the French Pox. 5. *A white and milkie matter*, which somtimes is sent forth in such abundance, that when 'tis setteld it fils one half of the Chamber Pot. The which ariseth from a Vitious Concoction, in which the Salt and Tartarous parts are not separated, but are attracted by the Kidneys. It *is Cured*, universals premised, by the use *of Hyppocrist* or Mallago Wine.

Article, VI. *Of Pissing of blood, matter, and Hairs.*

Bloody Pissing, is a voiding of Blood together with the Urin arising from the heaping up of the same in the Bldder.

The SIGNS are, that the Urin doth not shine, and hath the Color of Water, in which the flesh of beasts new killed is washt.

The CAUSE is explained in the definition, and in the Difference more shal be said.

The CURE *must be hastned*, if the evil be inveterate, least it lead to a Consumption or cachexy. If it be cast forth in abundance, least it stop in the Bladder and putrefie. It must be turned against *the Cause*. *The Symptoms* requires, other things being alike, things astringent, condensing, and consolidating; amongst which do excel, *Yarrow* with the white flower, *the Tincture* of emralds, *the Arcanum* of agrimony and Cinquefoil. *Mynsichtus his Decoction*, &c.

The *Difference* is taken from the Parts that pour forth the blood.

One is from *The Kidneys*, which *is known* by this, that it is plentiful, is exquisitely mixt with the whol Urin, that being as it were diluted with it, 'tis thin, ruddy, liquid and settles without clotting together. It *ariseth* either *from the Anastomosis of some Vessel in them*, and *then* 'tis made plentiful and high colored; or some violence or wound hath went before, or there are signs of Fulness, or the blood is too thin. Or *from the corrosion of a Vessel*, and *then* the blood is voided in a lesser quantity, especially at the beginning. Or *By a Diapedesis*, and *then* the Urin is lightly dyed with a red color. *The Cure* also requires opening a Vein in the Arm, which must be followed with the use of astringent means inwardly and outwardly. *The Trochisks of Gordonius* are good.

Another is from *the Liver* either weakned, or oppresst with blood, or affected with the same diseases as I said even now; and *then* there are no signs of the Kidneys affected; we must consult with the Chapter of the diseases of the Liver. Hither belong the suppression of the Hemorrhoids, of which in its place; a wound

of

of the ureters from stones passing through them, from which very little blood flows forth, &c.

Another from *the Sphincter muscle of the neck of the bladder*, and *then* the Urin is not equally spred over with it, the blood setling goes into clots, the pain for the most part oppresseth in pissing, and burns as it were the Root of the Yard, other signs either of an Ulcer, or of a Vein broke are present, *the Cure* is the same.

Another from *the inward Passage of the Yard*, and *then* it oftentimes comes forth without the Urin; that which comes with the Urin, clotting together presently sinks.

II. *Purulent Pissing, is a voiding of matter with the Urin heaped up in the Bladder.* 'Tis heaped up. 1. *By default of the bladder it self*, either because that is troubled with an Ulcer, or because the blood conteined in the bladder is turned into matter, and then the matter is voided less mixt with the Urin with branny Scales. 2. *By Default* of the ureters, and then a little swims a top like Hairs. *By default of the Urinary Passage, of the Spermatick Vessels, and the parastatæ*, and then in the first place it comes forth sincere. 4. *By default of the Kidneys, Liver, breast*, in as much as those parts do transmit matter through the Veins to the Bladder; and then the matter is accurately mixt with the Urin, if any thing thicker be a Part, it flows forth towards the end.

III. *A Pissing of Hairs or Trichiasis, is when with the Urin a mucous matter is voided sometimes like to Hairs, sometimes to thin Leaves.* Those Hairs sometimes equal the length of one or two hands breadths. *The Cause* of them is a thick and viscous flegm, dryed and knit together in the Veins by heat, which in its long passage through the narrow Veins of the Kidneys and ureters is extended to so great a length. See concerning this *Horstius* his fifth Section, *Epistol. medica*. In the Cure, *Spirit of Turpentine with Syrup of Marsh-mallows* is good.

[Read more of this subject in the Guide to Physick and Chyrurgery, *Riverius* Practice of Physick, and his Observations; and the *London Dispensatory*. Al of the last Editions, Englished by me.]

Title, X. *Of the Affects of the Genital Parts in Men.*

Chap. 1. *Of their Diseases.*

Article, I. *Of the Diseases of the Stones.*

THe Diseases of the genital Parts in men have under them the Diseases of *the stones, Cods, and Yard.* The principal *Diseases of the Stones*, are which follow.

I. *A Distemper*, and that either *hot*, which *is known* by a proneness to Venery, by too much and hot Seed, by heat of the stones, by swelling of the Veins about them with blood. *'Tis Cured* by a contrary Diet, and cooling Medicines, *of Lettice, Water Lillies, Purslane*, but especially *by those compounded of Sugar of Saturn, and sallow Leaves. Or Cold*, which *is known* by little and Watry seed, by casting it forth with little or no Pleasure, little desire to Venery, cooling Causes went before, or immoderate and unseasonable Venery. *'Tis Cured* by a contrary Diet, and taking of medicines, inwardly, *Betony, Calamint, Marjoram, Sage, Nettles, Nutmegs, Diamoschum.* Outwardly, *Oyl of Costus, Spike, of Aunts.* Or *moist*, which *is known* by this, that the Seed is cast forth too soon. Or *dry*, which yeilds little and thick. *They are Cured* by their contraries.

II. *A Tumor*, which either is an *Inflamation*, in whose Cure (for of the rest I have nothing to say) observe. I. That whiles Medicines are applied to them, the ligature ought alwaies to tend towards the upper parts, that they may not hang down too much, and the defluxion may be less. 2. To intercept the flux, a defensive must be laid on the side of the Pubes, where the Veins and Arteries from the belly tend to the stones and Cod. 3. Other things being alike, *the Decoction* of Agrimony with Wine and Vinegar is commended. *The Root* of wild Cowcumber likewise boyled. *The Herb* Paris green, bruised and applied, &c. *A Schirrus* or another cold and hard Tumor, which

which oftentimes ariseth from an Inflamation ill Cured. 'Tis *taken away with a Cataplasme*, of Littice Roots boyled in sweet wine with the flowr of Flax, Barley, Fænugreek, Onyons, &c. Which must be followed with *a Liniment* of the Balsom of Sulphur, and *the Plaister* Diasulfuris. Or *an inflation*, for the Cure of which serve the Leaves of Henbane and a drauft of Juniper water, one ounce weight every day with the Rowls of Diacyminum.

III. *Ulcers*, which because they are in a moist place are dangerous, and sometimes turn to a Cancer or Gangreen. They ought to be washt with *the decoction* of Roses, Leaves of Speedwel, and Plantan; they may be mundefied with *the Ointment* of the Apostles.

IV. *A Contusion*, which is joyned with a great pain, it corrupts their Oval Figure, and oftentimes takes away the power of generation. We must timely oppose the pain, least a Defluxion be Caused.

Article, II. *Of the Diseases of the Cod.*

The Diseases of the Cod are, *Inflamation, Excoriation, Wounds, Ulcers, and Rupture.* Of them there is no need to say any thing. *An Excoriation* is often Caused by the Urin, the upper Skin being corroded, and 'tis Cured by sprinkling of Pompholyx, or dryed Myrtle finely poudered, searced, and mixt with Frankincense or Myrrh.

A Rupture of the Cod is a Tumor of the same, arising either from the cause falling down into it, or from wind or water collected there, or a masse of Flesh generated there.

The *Species* of it are four, if you consider *the Differences*.

I. One is *windy*, or a Pneumatocele, which *is known* from hence, that the Cod, sometimes also the stones is very much distended without a weight & heavines; the wind is felt if the Cod be prest with the hands, and is removed from place to place with a noise. It *ariseth* from winds, which are either collected there, or transmitted from the neighbouring Guts and Belly: and 'tis most familiar with Children. 'Tis *Cured* (premising universals) by things discussing outwardly and inwardly applied. *A Cataplasm* of Bay-berries, the flower of Beans and Fenugreek, with Bran, the pouder of Cummin seed, ammoniacum, turpentine, oxymel, and oyl of bays mixt together is good.

II. Another is *watry*, or a hydrocele, which *is known* because there is perceived a waving, the cod appeares as it were shining; the tumor alwaies continues at the same bigness, neither doth it go up into the belly by pressing it. *It ariseth* from water, which for the most part flows thither from the belly, for those causes which are mentioned in the dropsy. *It is cured*, 1. *By prohibition* that the watery humor be not generated, or flow thither, of which see the differences. 2. By *emptying the water fallen thither* either insensibly, to which end the former cataplasme wil serve; or sensibly by opening of the cod, of which see Authors. 'Tis *divided* diversly, 1. One is from *water only* distending the cod, another also from *wind* joined with it, in whose cure we must have regard to both: another from *flesh* growing together about the stone, whose cure must be warily handled that it turne not to a cancer. 2. One is *with a dropsy*, and then the cure must be directed against the dropsy; Another *without a Dropsy*, in which although there is not such great plenty of water, that it can raise up the belly into a tumor, that there is somwhat of it collected in the cavity of the belly, by reason of the weakness of the parts, especially an external cause being added, as striking &c. The tumor *either* possesses the whol cod, *or* only one side; and *then* the humor sticks in the erythroidal membrane that conteines the stone. The right stone never, alwaies the left swels. *Or* the fault is in the *left kidny*, through which when the serum cannot descend, it fals through the seminal veine proceeding from the emulgent of the left kidny, into the erythroidal coate; from the cure of which we must either abstaine, or the cod must be opened only in the lower part. *Or* it is not, and then the cod must be cut in the upper part neer the groin, that both the humor may be emptyed, and the afflux of more through the skar of the erythroidal coate be hindred. See *Frabricius* his observations. 3. One is when *the water is conteined between the erythroidal coat, and the darton*, in which the tumor is rounder, like an egge, the stone is hidden from the sight and touch, the cod it self is more white and is distended little or nothing: another is, when *'tis out of that betwixt it and the adjacent skins*, in which the stone is to be felt, the cod is more distended. Another when 'tis *in its proper skin or coate growing over it*, in which the tumor is every where globical, resembles

bles the draft of another ſtone.

III. Another is *a fleſhy rupture* or a Sarcocele, in which ſomthing fleſhy is bred. It *is known* by a hard tumor, increaſed by little and little, afflicting without a tumor of the groine, by which it is diſtinguiſhed from a rupture of the guts; 'tis for the moſt part in the right ſtone becauſe nature doth moſt comediouſly caſt off the blood to the ſtones by the ſeminal veine iſſuing from the cava. It *ariſeth* from an impurer blood flowing to the teſticles and cod, by degrees dropping from the membranes of the veſſels, and changed by nature that is never idle, into a ſubſtance like unto fleſh. 'Tis *cured*, 1. *By repreſſion* with repellers and dryers, the pouder of the root of Reſt-harrow is commended, 2. *By cutting*, of which ſee Authors. 'Tis *divided* into a *ſcirrous one*, in which there is neither pain nor heat; *and a malignant one*, in which there is felt a pricking pain.

IV. Another is *various*, or a Cirſocele, in which the veſſels nouriſhing the ſtones are dilated like to varices. 'Tis *known* by this, that the veins are ſweld, and wreathed and rounded like ſhootes of vines, the tumor is oblique and rowled up like a grape; ſpring and autum, the the guts being diſtended with wind, or the feet cooled, a pain accompanies it. It *ariſeth* from a thick melancholy humor poured into the veſſels. 'Tis hardly cured, things drying, and hanging the ſtones in a truſs are good. Cutting can ſcarce be uſed without hurting of the ſtone.

Article, 3. *Of the diſeaſes of the Yard.*

The diſeaſes of the yard are various.

I. *A diſtortion*, which befalls thoſe, who indulge too much to venery, and have their genitals along while diſtended; for then the ſpirit concluded in the ligaments, acting violence upon ſome part of another ligament doth relax it, and makes it bunch forth like a beane or glandule, by which means it comes to paſs, that how much is added to the accuſtomary latitude of the part, ſo much is bated of its longitude: 'Tis cured by abſtinence from venery, and by thoſe things which ſerve for the cure of a rupture. See *Arantius*.

II. *Inflation and inflamation*, of which, that doth ſomtimes ariſe from lying with a woman whoſe womb is uncleane, and repleat with ſharp humors; we meet with nothing ſingular concerning them.

III. *Warts and excreſcencies*, which *either* are upon the top of the nut, which degenerate into a cancrous Sponginеſs; *or* they bunch out about the fleſh of the nut and under the foreskin it ſelf, and they are ſoft, ſpongy, alwaies moiſt, fmelil, and are dayly increaſed, and are familiar with them that are troubled with the French Pox. They require Chirurgery.

IV. *Ulcers*, which are divers, 1. Some are *external*, which are apparent to the ſight, yet ſomtimes when they are about the nut and foreskin, they cannot be ſeen by reaſon of the ſwelling of the part. If the region of the nut be exulcerated, all medicines ought to be drying. Others *internal*, ſticking in the urinary paſſage, *which are known* by the pain cauſed by the urine paſſing by, and the matter coming forth before the urine, the yard ſwelled and diſtended. They ariſe *either* from an impoſtumation following an inflamation, or from ſharp urine, or from rough ſtones, and rough things hurting in their paſſage. *They are cured* as others be. 2. Some *penetrate* that both external and internal parts be exulcerated, and the ulcer pierceth even to the urinary paſſage. Others *not ſo*. 3. Some are old, *ſordid and rotten*, which are wel waſht with hydromel and wine. Others are *virulent*, as thoſe that happen in the French Pox, in which we muſt uſe precipitate mixt with a convenient linement, til that which is callous be waſted away. If a gangrene or mortification follow, it muſt be cut.

Chap. 2. *Of the Symptoms of the genital parts in men.*

Article, 1. *Of the generation of ſeed hurt, and the erection of the yard.*

THe ſymptomes of the genital parts in men are, *the generation of ſeed hurt, the erection of the yard hurt, Lechery, a Priapiſme, a Satyryiaſis, and the runing of the Reins.*

The generation of ſeed hurt is, when either it is not generated, or not ſuch as may ſerve for procreation. 'Tis *twofold*; therefore one is *when the ſeed is not geneted*, which comes to paſs either *by defect of matter*, or by the things non natural, as hunger, watchings, or by things preternatural drying up and waſting it, eſpecially the diſeaſes of the heart, *or by reaſon of the attraction of the ſame by other parts*, which comes to paſs both in children, and fat folks, in whom al the nouriſhment is changed into the ſubſtance of the body.

Or

Or by reason *of a fault of the faculty of the genital Parts*, whether it be innate, or acquired, as a defect of the Vessels generating or carrying the Seed, bewitchings, inchantments, &c. Another is when *'tis not generated fruitful*, which comes to pass, *either* by reason the matter is not commodious, too hot, moist, or dry. Or by reason of a cold distemper of the genital Parts, which sometimes is contracted by too much lust in youth, by applying mercurial Oyntments to the genitals, &c. There is no need *of Signs*. *The cure* must be directed against the Causes. But the Seed is increased by the greater *Root* of Dogs stones, cubebs, the Yelk of a new laid Eg with Wine and a little Oyl of sweet Almonds. *Crollius* his *essence* of *Satyrion*, *Mynsichtu*, his *Confectio* Magnanimitatis, and *de Succulata Inda*.

II. *The erection of the Yard hurt, or a viril impotency is, when that by no endeavors can be erected, or extended.*

There is no need to treat of *the Signs*. *The Causes and Cure*, are expounded in the Differences.

The *Differences* are taken from the Causes.

For there is one viril impotency from *the defect of Seed*, either because it is not, or because it is but little, or crude, and doth not stimulate, of which we have spoke formerly.

Another is from *the defect of vital spirits*, *either* because they are few by reason of the coldness and dryness of the heart, *or* because they are called another way, which happens in meditations, fear, bashfulness, &c. Or because they are not received by the substance of the Yard, either by reason of a stupidity of the Member, or by inchantments.

Another is from *a resolution of the Yard*, effected by those Causes, which we mentioned in a Palsie. See Medicines serving for this Disease in *Stockerus*, l. 1. c. 55. Where he makes mention of Satyrion, five ounces; which ought to be mixt with the blood of Spatrows, ten ounces, and be held under the Arms. Some say that lust is wonderfully provoked, if the great Toe of the right Foot be anoynted with Oyl in which Cantharides have been dissolved. And also a simple washing of the Privities with *the Decoction* of Columbines, which must be followed with a Fumigation of a dead mans Tooth poudered, and cast upon the coales.

Article, II. *Of Lechery, a Priapisme, and Satyriasis.*

Lechery is too great a proneness to Venery by default of the Seed, sometimes also so great, that 'tis turned into madness. The fault of the Seed consists, 1. *In the plenty of it, either* from the abundance of blood, *or* from the heat of the Vessels dedicated to the generation of Seed, by whose means more is attracted. *In the Cure*, we must act with things that consume the Seed, amongst which *Mint and Sugar of Saturn* excel. But a Vein must be opened also, and the Patient Purged. 2. *In its Acrimony*, contracted from hot meats, Medicines and sharp things, which must be opposed. 3. *In its Commotion*, whiles seeking a Passage, it causeth an itching.

II. *A Priapisme is an erection of the Yard without any desire of Venery, arising from a windy Spirit filling up the hollow Nerve of the part.* That Vaporous spirits ariseth *either* in the Nerve it self from a cold distemper, *or* in the Yard and Vessels from a thick and crude Humor by an unproportionate heat, and here the distilled Oyl of *Rue* takes place. For the most part 'tis by Reason of the mouths of the Arteries are too open and dilated, pouring forth plenty of Spirits, because perhaps the Loyns and Kidneys being heated they grow hot, and are filled with much spirits, which happens to those that abound with much blood. *In the Cure*, universals premised, *Water Lillies*, *the Seed of the Chaiste Tree*, and other coolers ought to be applied.

A Satyriasis is a Palpitation of the Yard following an inflamatory disposition of the spermatick Vessels with a distension. It happens rather to young men, than to other Ages; *the Cure* must be hastened least they fal into a resoultion or Convulsion of the Seminary Vessels. We must have a Care *of Purges* in it, unless Perhaps we can make an aversion by Vomits: and from things that move Urin.

Article, III. *Of a running of the Reins.*

A Gonorrhea is a too great and involuntary shedding of the Seed, arising from its own fault and the fault of the Spermatick parts.

The

The SIGNS are evident, the seed is shed against their wils, without lust and dreams of lust, without any stifness of the Yard, with no sense of delight, or very little, from whence is caused a slenderness of the whol Body, about the Loyns especially, with a paleness and hollowness of the Eyes.

The CAUSE and CURE shal be explained in the Differences. The Flux is stopt by the magistral of the bone of the fish Sepia, given from six grains to half a scruple with old conserve of Roses. By *fixt Antimony* with Plantan Water.

The *Difference* is taken from the Causes.

One is *by default of the Spermatick Parts.* 1. *Of a cold and moist distemper*, which *either* ariseth from external Causes endewed with such a vertue, and weakens their retentive faculty, as too much Venery, *or* from an afflux of Humors, in which Case emptying and binding with heaters mixt takes place. It is *the easier* Cured, so it be new, *the pouder of Turpentine*, given with milk for fifteen daies does good. 2. by default of their *Laxness* when their Bladders conteining the seed, and the Vessels that carry it, are too much enlarged and Relaxt.

Another is *by the fault of the Seed it self*, which is, 1. *Plentiful*, by forbearing from Venery, and by using meats that nourish wel, and *then* bleeding, Fasting, exercises do good. 2. *Sharp and hot* stimulating the expulsive faculty, which proceeds from the like blood, by reason of the heat of the liver and Kidneys; and then a priapism for the most part is joyned with it, external Causes went before. *The Cure* must be ordered, by emptying of Choler, by anointing the back bone, and Loyns with cooling Oyntments. 3. Crude, watrish, and thin, and that *either* by reason of the coldness of the stones, or of things taken, or the like distemper of the Liver, and *then* the Seed comes froth even at the touch of a Woman, there are present the signs of crudity. In the Cure we must act with driers and strengthners. *The essence of Turpentine* is commended given one dram weight in Syrup of Agrimony. *Or* by reason of the abundance of Vitious Humors in the body, which are sent to the spermatick Vessels, and *then* we must act with empriers and good Diet. 4 *Virulent and Malignant*, as is concracted in the French Pox, which *is known* from hence, that at first a white Poyson or somwhat Yellowish fals from the spermatick Vessels insensibly, as wel when they wake as sleep, which in time putrefies and gets an Acrimony, eats and exulcerates the Passage of the Yard, from whence ariseth a pain, which also when 'tis stiff does stretch a string as it were under the Yard, and in pissing does goad sharper as it were in a dysury; that is somtimes hollowed so deep, that it breaks outwardly at the upper Skin of the Yard. It *ariseth* from a weakness of the Spermatick Vessels and stones, contracted by that poysonous Evil, which causeth that whatsoever is collected in these Vessels, turns to a filthy Poyson, which by contagion Pollutes any other body. As concerning *the Cure* 'tis *difficult* in old Men, in al, if it be stopt without reason. For there is collected for the most part an impostumation within, somtimes about the stones in the Epididymis, somtimes in the Perinæum, which the Skin breaking pours forth the matter. We must abstain from *things astringent*, least it being retained doth corrode the Parts. Dryers and things that resist Putrefaction, as are, *Sorrel, Treacle, Mithridate*, and those things which are dedicated to the French Pox, do good.

Titile, XI. *Of the Diseases of the genital parts in Women.*

Chap. 1. *Of the Diseases of the Neck of the Womb.*

Article, 1. *Of a Tentigo and Cauda.*

THe Diseases of the Womb are either of *the Privities* or Neck of the Womb, or *of the womb it self*. To those belong, *Tentigo, Cauda, Straitness, pustles, condylomata, Hemorrhoids, and Ulcers.*

1. *A Tentigo or great bit, and the womans Prick, is the growing of the Clitoris into too great a bulk.*

The Subject is the Clitoris, or that Nervous flesh, hard, which in the Neck of the Womb the Joynt wings of the Privities do embrace, and at the Top of which, that is, the which

swels in desires of Venery.

This manifest affect needs no SIGNS; somtimes the bulk is so great, that it hangs forth through the cleft of the Privity as thick as a goose Neck, and resembles a mans Yard, they have too great desire of Copulation.

The CAUSE is too great an Afflux either of an Humor, or nourishment, by reason of its Laxness which is induced by often touching, and 'tis wont to cause lust at the least rubbing of the Cloathes.

The CURE respects. 1. *The abatement of blood,* and the bringing forth of other Humors, for which ends serve a most slender and cooling Diet, and discussives, especially the leaves of *the lentisk and Olive.* 2. *The taking away* of the same *Excrescency,* where first must be applyed the gentler caustick, *As Alum, Unguentum Ægyptiacum, the lie* of which Soap is wont to be made boyled with Roman Vitriol, adding towards the end a little Opium, and make Trochiskes of them, with which pouder the flesh must be strowed over; at last the flesh must be cut off, either by Ligature, or Section, having a care of an Inflamation.

II. *A Cauda is a certain fleshy substance arising from the Mouth of the Womb, which fils up the womens Privity, and somtimes hangs forth like a Taile.*

The SIGNS and CAUSES are the same, as in a Tentigo, only that Women fear Copulation. The CURE is also the same if it must be cut off, it must be done either with a Horse Hair, or a silken thred dipt in sublimate water, or by Iron.

Article, II. *Of the straitness of the Neck of the womb.*

The straitness of the Neck of the womb, is either a stopping of the same, or of the Orifice of the womb, either by compression, or a growing together.

The SIGNS are, the Flux of the Courses denied, in them in whom they were wont to flow through the Neck, a sense of pain with a weight.

The CAUSE is either *natural,* when it affects from the birth, or *accidental,* of which in the Differences.

The CURE varies according to the Nature of the Differences.

The *Differences* are taken from the Part, and the Causes.

I. One is of *the outward Orifice,* which is called of the Pudendum, in which the Courses, which flow both by the neck and by the womb, are disappointed, there can be neither Copulation nor Conception, because neither the seed nor the man is received.

Another *of the inward,* which is called the Orifice of the Womb, in which the seed received presently flows forth again, conception can in on wise be.

II. One is *by way of Compression,* which is Caused, 1. By a Fat Caule lying on the mouth of the womb. 2. By a straddling of the Thighs. 3. By a stone in the bladder. 4. By a Tumor in the right Gut, of which in their place.

Another is *by way of growing,* which is caused. 1. Either *from the birth,* and *then* either *flesh* stops it, which is red to sight, soft to touch; or *a Membrane,* which is white to sight, hard to the touch. *In the Cure.* 1. The Part being moistned with warm Fomentations, it must be cut streight up taking Care that the Neck of the Bladder be not hurt. 2. The humor must be drawn forth, and a tent must be applyed dipt in a suppurating Medicine. 3. And astringent pouder must be had in readiness for fear of a Flux of blood. 4. The following daies the place must be washt with honey & water, and we must act with things that Cicatrize. 2. Or *after the birth,* cheifly from *an Ulcer,* and *then, either* the sides of the Neck are grown together, in which case we must use incision but very warily; *or* there is a Callous substance which first must be cut off with a Pen Knife, *or* a Spongy and Luxuriant flesh, in which first of al we must use dryers and discussives as brithwort, Frankincense, Myrrh, Mastick; afterwards we must apply corrosives without pain, at last we must cut it.

Article, III. *Of the pustles, Condylomata, and Hemorrhoids of the womb.*

Pustles of the womb are, little bunchings arising in the neck of the womb, which by their Acrimony do Cause itching and pain.

The SIGNS are, Itching, Pain, a falling down of Scales like flower, to which we must add a *Speculum Matricis,* that the affect may be the better discovered.

The

The *Cause* is cholerick, sharp, adust, and thick humors, which emptied into moist and loose places do insinuate and immerse themselves in them.

The CURE respects the causes, universals being premised, where amongst preparatives prevaile syrup of *Fumitory*, *of succory* with the decoction of hops; topicks discussing and mitigating the humor, especially baths and halfe baths, which must be followed with washing the part with wine and niter. But these must be often repeated.

They are divided into benigne and malligne or venereal, which are stuborn and contagious, they ought to be washt with the water made of aloes the quantity of one vetch, flower of brass the quantity of half a vetch flower of brass the quantity of half a vetch pouder'd and mixt with white wine one ounce; plantane water, and of rose heads each one ounce, and kept in a wide mouthed glass.

II. *Condylomata, are swellings of wrinkles in the necke of the womb with heate and paine.*

There is no need of *Signes* because they appeare to the eyes, oftentimes if there be many they resemble a smal bunch of grapes. The wrinkles hang forth like knobbs, which appear in the fist clutched. But they swel more when the courses flow.

The CAUSE is Thick and Adust humors.

The *Cure* in general respects *the taking away of the causes* and *repercussion* and *drying*.

As concerning the *Differences*.

Some are *with an inflamation*, in which the pain and heat is greater, the condylona is hard. *In the Cure* we must act with anodyne half baths, and perfusions.

Others *without an inflamation*, which if *they be new* we must repel and dry; if *cold and inveterate*, we must first mollefie; then disgest and dry. Here take place *the pouder of* egg-shels burnt; the oyntment of trochisks of steele one dram redeuced into pouder, and mixt with oyl of roses and wax, adding halfe an ounce of the juice of mulein. *The oyntment of* the mad apple, concerning which see a Castro, l. 2. c. 25. de Morb. Mulier. If the condiloma yeild not to these medecines it must be cut off by an instrument and astringent pouder strewed on.

III. *The hemrods of the wombe, are smal swellings like unto the hemrods of the anus, raised in the necke of the wombe, by an afflux of Feculent Blood.*

The *Subject* is the neck of the womb, for there they are, where the veins doe end, as in the hemrods of the anus: and these are lift up by an afflux.

The *Signs* are manifest; for they are discovered by the sight, if a speculum matricis be applied, the women looke pale, and are troubled with a wearines.

The *Cause* is Feculent blood, which when sometimes it flows to these veins not at its due time there stopping it becomes thicker, that it cannot penetrate the orifices.

The *Cure* is order'd. 1. *By revulsion* by opening a vein in the arme. 2. *By derivation* by opening another in the ankle.

They are *divided* twofould.

I. Some are *painful*, which by the paine it selfe are distinguisht from the courses, and are cured by things that mitigate the same, especially half baths, and *the Cataplasme of* a Castro l. 2. c. 26. de Morb. Mulier. And also with opium, which notwithstanding is safer in the hemrods of the anus. Other, *without pains* towhich, what is, and shal be said ought to be applied.

II. Some are *open*, which flow *either* moderately, and *then* the business ought to be comitted to nature. *Or* too much, so that the strength is dejected, and there is feare least an evil habit of body be induced, and *then* for revulsion blood must be taken from a vein of the arme at several times. For purging, myrobalanes, tamarinds, and rhubarb serve. At last we must act with things that stop blood.

Others are *blind*, from which no blood at al flowes forth. The *Cure* is perfected, by emptying of blood, by emollition and fomentation of the part, with mollefiers and things opening the mouthes of the veins, and discussing the matter. By artificially opening the same, concerning which things see the chapter of the hemrods of the anus.

Article. IV. *Of the ulcers of the neck of the wombe.*

There is no need to define what *the ulcers of the neck of the womb* are.

Their *Signs* are, a pain and perpetual biting in the same place, which by little is increased, especially if any thing abstersive be cast in; a flowing forth of sanious humors and matter by intervals, somtimes with blood, if the ulcer be great, or the courses flow. A pissing often and hot, if the orifice of the bladder be drawn into consent; a paine in the fore-

part of the head extending it selfe to the roots of the eyes, if the head. A smal feaver which in process of time growes flowe, with often horrors, &c.

The CAUSES are al external and internal things, which by their acrimony can dissolve the continuity in that part, of which in the differences.

The CURE is *difficult* becaus it is in a place of exquisite sence, moist, and which hath a consent with many parts. *'Tis Ordered* the same manner was spoke in general in the first book. To inhibit the paine, *Steeled milk* cast in doth good. For drying, *baths.*

The *Differences* are various.

I. Some are from *external causes*, as medicines, hard labor, violent copulation. And others from *internal*, as are the secundine corrupted, the flux of blood retained, the flux of the womb, a virulent gonorrhæa, the french pox, Inflamation. Humors flowing thither, either from the whole, or a part, or generated there; al which must be attended in the cure.

II. Some are *superficial*, from which little matter flows, and medicins may be layed upon them. Others *profound*, which are in a contrary way, and the medicines ought to be injected.

III. Some are *Milde* with little matter, thick, not stinking, in which both the gentler abstersives, as honey of roses with barly water, whey with sugar or the decoction of lentils, and the more benigne astringents take place. Others *sordid* with plenty of matter, and flowing forth with paine, in which we must act with stronger things. *The mundifyer of smallage* in Castro l. 2. c. 29. is here commended. Others are *eating* with a colored matter, green livid, stinking, flowing forth with paine, in which *aloes and wormwood* amongst mundifers are the cheife.

IV. Some are called *Rhagades*, which are smal and longe ulcers, eating the skin of the necke of the womb. *They are known* both by the paine and blood caused in copulation; and by sight, if the neck be looked into; and they are like unto them, which in winter time are wont to rise in our hands. *They arise* many waies. 1. *Externally*, from a painful labour, violent copulation, and then we must use an astringent glyster. 2. *Internally* from an inflamation, condylomata, an afflux of sharpe humors, which must first be taken away by purgers, before we come to topick medicines. There is commended for them, *the fatt* which distils from wooden spoones used to boyl in kitchins; if they be a little moved to the fire and burnt; and also the oyntment pomada. Others which *leave behinde them a Fystula*, which is voide of paine, unless it come to a nervous part, sometimes it passes to the bladder and right gut, and the excrements are cast forth through it. If it be ancient it ought to be left to a palliative cure; in which at fit seasons the body is purged, but the callus which is alwaies joyn'd with it, if that be curable, after drying of the part, being molefied by vulnerary potions, must be wasted, either by cutting or burning.

Of a cancer and gangrene, I meet with nothing singular. *That* is generated by menstruous blood adust, and when scirrous tumors continue long. *This* in this place, ariseth from an inflamation, cancer, and ulcers there il cured. For while these parts are moist and abound with excrements, they are easily corupted and perish.

Chap. 2. *Of the diseases of the womb.*

Article, 1. Of the distemper of the womb.

The diseases of the womb are, *distemper, straitness of the vessels, inflation, inflamation, a scirrhus, dropsy, falling down of the womb, wounds and ulcers.*

The distemper of the womb is a swarving of the same from its natural temper, to a preternatural distemper, arising from external and internal causes.

'Tis divided twofold.

I. One is *hot*, which *is known* by a proness to venery, by the scarceness, yellowness, blackness, adustion, acrimony of the courses, and by their difficult and inordinate flux; whence in process of yeares they become hypochondriacal, by the early growing of hair in the privities, redness of the face and dryness of lips, often pains of the head, and abundance of cholerick humors in the body. It *ariseth* either *from the birth*, from whence are viragos, and barrenness: *or after the birth* from external causes, amongst which are the use of hot things, too much venery, medicines which do move the heat and blood to the womb. *'Tis cured*, 1. *By the contrary diet.* 2. *By cooling medicines*, both internal and external, which are applyed to the loins and back, but they must be moderate, least the heat necessary for conception

ception be weakned, the cold substance of the womb because it is membranous, be violated; the vessels which ought to be open for flux of the courses, be condensed; and the nerves which are in the loins and back, be hurt. 3. *By emptiers*, viz. Rhubarb, syrup of roses solutive, manna &c. *The flowers of Vitriol of Venus & Mars*, from three grains to six grains; given in some syrup is an appropriate purger for the womb.

Another is *cold*, more frequent than the hot, which *is known* from a less desire to venery, and the little pleasure in it, by the stopping, mucosity, flegmatickness of the courses, and their inordinate flux by reason of the plenty of the like humors collected in the womb; from whence is obstruction; by the plenty of wind in the womb, by the crudity and watrishness of the seed, from whence it flows without any pleasure; by the pale color of the face, and other things opposite to the former. *It ariseth* also from causes contrary to them, 'T*is cured*, 1. *By a contrary dyet*, 2. *By hot medicines* applyed to the womb, amongst which do excel *inwardly*, *the Roots* of Birthwort, avens, angelica, eringoes; *the Leaves* of Mercury, balme, dittander of Candy, pennyroyal, Sage, Rosemary, mugwort *The Flowers* of wal Flower, Marigold, Sage, Rosemary, burrage. *Spices*, Nutmeggs, Cubebs, Saffron, Cinnamon. *Of Compounds*, Oyl of Mace, Amber, Myrrh, Cinnamon, *Fecula* bryone, *Aqua vitæ* Mulierum. *The extract* of Zedoary. *Outwardly*; the same things reduced into their formes.

Another is *moist*, which for the most part is joined with a cold. It is *known* by the plenty, thinness and watrishness of the courses, the moisture of the privities by reason of the humidity of the excrements, and the passion of the Flux of the womb, even when the seed is voided, no delight in venery, and an aptness to miscarry when the young one grows bigg. It *ariseth* from the same causes as yet which is cold, and happens to them cheifly who lead an idle and sedentary life. 'T*is cured* as the former, yet observe, that the fume of *the shaving of* Ivory and Sage boyled in wine and water conveighed through a pipe before supper, is commended. *Sulphurous baths* beare the palme away in outward things; we must have a care of astringent means, least they detain the excrementitious humors.

Another is *dry*, which *is known* by the scarceness of the seed and courses, slowness to venery, dryness of the mouth of the womb, the color of the lower lip a blackish red, with continual clefts; It *ariseth* sometimes *from the very birth*, whence the patient hath a dry temper, and slender constitution of body. Sometimes *by reason of age*, whence they cease to breed. Sometimes from *diseases themselves*, viz. an inflamation &c. sometimes from *defect of blood* which ought to moisten it, *either* because 'tis not emptyed by it, by reason of the straitness and obstruction of the veins, *or* because being emptyed through the neck, it comes not to the bottom. 'T*is cured*, 1. *By a contrary dyet*, in which too much labor, watchings, fasting, sadness are very much to be eschewed. 2. *By the use of moistners*; amongst which do excel, burrage, buglos, mercury, Marsh-mallows, violets; amongst externals, baths of sweet water, and anointings with oyl of sweet almonds, white lillies, hens grease, the marrow of calves leggs &c. *The cure is difficult* if the dryness be of long continuance and hectical.

II. One is *simple*, to which belongs what hath been said before.

Another *compound*, most commonly cold and moist, which *is known* by the former things compared amongst themselves. It *ariseth* from flegmatick humors, whether derived from the whol, or produced by the whol. It *is cured*. 1. *By preparation* of the matter by hot hysterical means. 2. *By emptying*, and that *universal* of the whol body by things that purge flegme. *By particular* of the womb it self; of which we must have the greatest care, if nothing proceed neither from the whol, nor the parts. And here pessaries do much; also sulphurous and drying *baths by sweaters* which are here very much commended: viz. *with the decoction of Guajacum, china, sarsaparilla; lentisk* wood &c. 3. *By a contrary dyet.*

Article, 2. *Of the straitness of the vessels of the womb.*

The straitness of the vessels of the womb, is an interception of the same from its causes.

The signs are both a retention of the courses that they cannot flow, and an hindrance of conception, by reason the falling down of blood is intercepted.

The cause and cure shal be expounded in the differences.

'T*is divided* twofold.

I. One is *from external causes*, as medicines and affringent baths, which is known by the relation of the sick. 'T*is easily cured*, and we must

must act with moistners and mollefyers.

Another *from internal*, of which in the following difference.

II. One is from a *Skarre*, *flesh*, or *membrane growing on the orifices of the vessels*; *or from a growing together of the mouths of the veins after a violent drawing forth of the secundine*, which is almost incurable, yet some tryal may be made with things mollefying.

Another *from obstruction*, which thick, viscous, and plenty of humors do cause, *whether* they flow thither from the rest of the body, the heat not being able to attenuate them; *or* be heaped up in the womb it self by reason of the weakness of heat in that. *It is known* by this, that there are present the signs of a cold distemper, a moisture like snivel sometimes flows forth from the womb. *It is cured* as other obstructions. Revulsion hath its place, if the matter flow thither. Amongst openers of obstructions are commended sharp and bitter medicines, that move the courses, *steeled wine*, baths corrected with mollefyers and openers.

Another *from compression*, which is caused either by *a tumor* and scirrus, consisting in the womb or without it, and *then* the signs of a tumor are present. The evil is almost incurable, *or* by the too much fact of the neighboring parts; and *then* that is wholy manifest to the sence, we must act with things that do extenuate.

Article, 3. *Of an inflation of the Womb.*

An inflation of the womb is a distension of the same by wind produced out of a cold, flegmatick and flatulent matter, by defaults of a weak heat.

'Tis called also *a windy Mola*, by reason of the false hopes of a conception.

The signs are a distension of the womb consisting in the region of the belly, which is sometimes increased, sometimes diminisht; sometimes 'tis extended to the sides, sometimes to the navil, loins and midriffe. *It is distinguisht* from *a dropsy* by its lesser bulk, want of thirst, by the increasing and decreasing of the tumor, by a less wasting of the upper parts. From *a dropsy of the womb* by the foregoing of causes generating wind, by a noise, less heaviness, greater distension, by feeling an extensive and pricking pain in the neighboring parts. From *an inflamation of the guts*, because here neither are pains, nor costivness of body; because the courses are stopt, the feet and hollow of the eyes do swel, and color of the body is changed because the woman pants, is greived, and when she wakes out of her sleep, breaths with her neck upright. From *a mola*, by the want of heaviness and hardness in the belly with a weight, moving it self from side to side, when they move. From *a conception* by the sound, and increase and decrease of the tumor, by wanting of motion like to the moving of the infant, for if the belly be prest strongly, the wind being driven to the neighboring parts, a certaine beating motion is felt in the whol belly.

The cause is expresst in the definition, the matter it self is *either* generated in the womb it self. Either by reason of the suppression of the courses; or by interception of the purgation after a delivery; *or* proceeds from elsewhere, either by the veins, or by the seed vessels. *But the weakness of heat* ariseth for the most part from the external aire stopping by its coldness those impurities in women lying in, which seek a passage forth; from hard labor, abortion, stoppage of the courses, &c.

The cure if you consider the method, differs not from the cure of other inflamations, so we have respect to the part. *Observe* that amongst purgers, *Species hiera and diaphenicon with castor*, are commended. For suffumigation, *Nutmeg*, of which *Hartman* in his chymiatry; for plaisters, *the plaisten of bay berries* with treacle; for drinks, *nutmeg* bruised, boyled with the roots of feverfew and drank with six ounces of wine, two drams of Sugar.

The Differences are taken from the part it self.

One is *when the wind is in the cavity*, and then the mouth of the womb is so closed up, that none of it can get forth, when either the woman is moved or her belly perst with the hand, a sound and noise is perceived. But *that it may be contained in the cavity* is certain, both because the womb may be distended though it be thick, as in conception, and be retained there as in a mola; and because the altering and retentive faculties being never idle, do change the diseased seed into wind.

Another, *when 'tis in the coats of the same*, and *then* the mouth of the womb may be open, by reason that the winde is concluded in a narrow place, the sound goes forth and the pains are greater, and extended further: the evil is more difficult to cure, than that in the cavity.

Article.

Article, IV. *Of an inflamation of the womb.*

An inflamation of the womb is a tumor of the same from the putrefaction of blood fallen into its substance, troublesom with many symptomes, and somtimes turning to a scirrhus, somtimes to an impostumation.

The signs, are various, the tumor it self appears in the region of the womb, with a heat and pain, a shutting up of the womb, drawing of it towards the inward parts: but the whol neck of it appeares ruddy, little veins swelling every where with blood like to a spiders webb. There is a difficulty of breathing, which shew a pleuresy, because the outward coat of the womb being extended which ariseth from the peritoneum and is fastened to it, those parts also to which it coheres, are distended. The excrements of the belly and bladder, by reason of the heat and dryness of the belly, and compression of the passages, are detained. The bulk of the belly somtimes appeares empty, and the belly is filled with water, and the navil strutts forth, and the mouth is slender, and of a suddain a few and evil courses follow. A continual and burning Feaver afflicts, by reason of the consent of the womb with the heart by arteries and great vessels, somtimes a lypirias by the motion of the humors towards the inward parts. There is a pain of the breasts with an inflation of them by reason of the consent of the groins, the hipps, the midrife, the cannel bones, the forepart of the head which is extended to the roots of the eyes; and it ariseth from vapors of blood putrefying, carried up to the head by the arteries, which run through the neck from both parts of that called the infundibulum into the fore part of the head.

The cause is blood, which somtimes is pure, somtimes mixt with choler, somtimes dyed with black choler. *It slides thither* or slides forth for common causes, viz. the detaining of it in the time of the courses, or after a delivery by the occursion of the cold air. *'Tis attracted* by heat or pain which is caused; *either* by abortion, hard labor, violent drawing forth of the secundine, long walking when the courses are at hand, *or* by a troublesom carrying, if the young one be either great, or ill placed.

The cure is difficult, especially if the whol womb be possest or suppurated; for a sordid ulcer arising from thence, doth at length kil the patient with a slow Feaver. *None at al*, if there be an erysipelas, because the young one it self dies by reason of the exceeding heat, whence follows abortion which kils the mother. If it turne to a deadly gangreen. *'Tis cured* as in other inflamations, where note that for revulsion we must not open a veine in the leggs, when as these veins draw the blood to the womb, but in the arme, when as the blood flows from the liver, and the veins adjacent to it. For derivation, a veine in the ham may be opened, unless the patient be great with child, least abortion be caused. Topicks ought to be applyed cooling and moistning without any astriction. 'Tis thought that the *decoction of mother of time prepared with steeled water*, and outwardly applyed with sponges, doth stop it by a certain propriety.

The *Differences* are taken from the part it self.

I. One is *of the whol womb*, in which the symptomes afore mentiond do evidently afflict, and few indeed do scape. Another is *of the other side*, in which the heat passes to the hipp, by reason of the ligaments of the womb which are carried thither, the legg of the same side is hardly moved, the groins of that place are inflamed.

II. One is *of the hinder part*, in which the belly is bound, the paine doth more afflict the loins and backbone. Another *of the fore part*, in which because it coheres to the bladder, the urine is stoppt or made with difficulty, the pain goes more towards the pubes. Another of *its bottom*, in which the lower part of the belly is so pained, that it cannot endure to be touched, and the pain is extended more to the navel.

III. There is one *which turns to a scirrhus*, in which al things become milder, a weight and heavines is felt in the neighboring parts, the evil is of long continuance, and is often terminated in a dropsy of the womb. Another to *an impostumation*, in which al things are increased, til suppuration is made: horrors without order invade them for the most part about the evening; the impostumation being broke (but it breaks either into the cavity of the womb, which is safer, or 'tis poured Forth into other parts) somtimes the urine, somtimes the belly is stopt, with a swelling of the pubes, and the sense of somthing waving.

Article. 5. *Of a scirrhus of the womb.*

A scirrhus of the womb is a hard swelling of the

the same, and resisting without pain, produced from a thick, earthy, and fæculent humor.

The SIGNS are besides other general ones, to wit the Courses at the beginning are suppresst, or flow too little; the evil increasing, there is a great flux of blood by intervals, either the Mouths of the Veins being opened more than is fit, or the Womb not being able either to receive or retain the accustomary quantity of blood. *'Tis distinguisht* from a Mola, because in this if the Courses flow, they flow disorderly, and the Breasts also swel with Milk, which in a Scirrus are extenuated, &c.

The CAUSE is an earthy and feculent humor, to wit a thick blood, somtimes flegmatick, somtimes Melancholical, which happens in the declining Age, and troubles them which have been sick of a Pica, Malacia, or bulimus; oftentimes from an inflamation ill cured, by reason of the too much use either of coolers, or discussives.

The CURE is *difficult* both because things dryed a long time cannot be mollefied, and because the Native heat is exhausted in parts affected with a Scirrus, and because while the Humor is mollefied, it may easily turn to a Cancer by taking putrefaction. *The proceedings* of the cure differs not from others.

'Tis *divided* in respect to the part affected.

One is *in the substance it self*, in which the Womb lies upon the Hip and Back, and there Causeth a pain. Another *in the Neck*, which is discovered by the touch of the finger, 'tis easier cured than the former. If it be in the upper part of the Neck; the Woman is hurt in Copulation, and the bladder is prest by the Tumor, if it be in the lower part, the right Gut is offended.

Article, VI. *Of a Dropsie of the Womb.*

A Dropsie of the Womb is an impotency of the same from water collected in it, either by its own fault, or the fault of other Parts.

The SIGNS are a loose swelling of the lower part of the belly, extended according to the figure of the Womb a scarceness and evilness of the Courses, because they are like to the washings of flesh, their failing before the time, the thinness and moisture of the mouth of the Womb, softness of the Breasts, and want of milk, a rigour and oftentimes a Faver. *'Tis distinguisht* from *an Inflamation* by want of a Feaver, and by its softness, by other Symptomes, of which formerly. From an inflation, by defect of distension and noise. From a *Mola*, because in this a greater weight is felt in the bottom of the belly, the breasts at the time of the birth approaching do swel. From a *Conception* because in a Dropsie the Tumor of the Womb is extended according to the largeness of the womb and belly, inconception 'tis pointed. In women with Child the Courses do not flow, here a certain bloody Humor, evil flows forth observing no order, and is quickly stopt. From *a Dropsie of the Belly*, by the Patients color in the Face, unless the Liver be affected, by want of thirst, by the ascent of the Tumor from the lower part to the upper.

The CAUSE is the water there, either *by the fault* of the Spleen or Liver, of which consult with their proper Chapters; or *by the weakness* of the Womb it self, by reason of which, it doth neither concoct wel, nor wel expel its Excrements, the which is, *either* from often abortions, and hard labour. *Or* from too great a Flux of the Courses, dissipating its heat. *Or* from the suppression of them choaking up the same heat.

The CURE requires the bringing forth of the water, and strengthing of the Womb, having respect to the Causes, *Hartman*, commends *Antimonial Pills*.

The *Difference* is taken from the Part.

One is *when the water is collected in its Cavity*, in which the Orifice of the womb if it be touched, is found shut up, the Tumor is great, and a certain waving is perceived if it follow conception, that yellowish and stinking water within two months for the most part kils the Young one, which is then cast forth with it. Another is *when the water resides in its substance and little bladders growing to it*, in which its Orifice being handled it appears contracted: Greater pains arise, the Cure becomes more difficult.

Article, VII. *Of the falling down of the womb.*

The falling down of the womb is a hanging forth of the same out of the belly, proceeding

ceeding from a solution of the unity of its ligaments.

The general *Signs* are, a pain of the Loyns, of the lower part of the belly, of the Privities, of the *Os Sacrum*, to which the Womb is fastened, and this at the beginning. In process of time the pain is mitigated it being accustomary, and there is a troublesome sence only of a weight, and a hindrance in walking. *The special Signs*, vary according to the nature of *a greater* or *lesser* falling down. *In that* the Womb descends to the middle of the Hips and Knees, presents a Tumor like a Goose Egg, in whose lower part there appears a hollowness, *in this* a Tumor is perceived as it were of a skin retcht, and as it were a weight of a great Egg about the Privities.

The CAUSE is whatsoever can dissolve the unity of the ligaments; see in that which follows.

The CURE is *difficult*, if it be great, if it afflict those of ful Age, if a Feaver, convulsion, or other Symptomes happen. Nay if it be, 'tis deadly in those that lie in, and sometimes by the alteration of the ambient Air, or violent repelling of it, 'tis corrupted, and taken with a gangreen. It *consists*. 1. *In replacing of the Womb it self*, where *note*, first of al the Inflamation must be stopt, if there be any. If a Tumor impreſt by the cold Air on the Womb do urge the part must first be fomented with a Decoction of Mallows, Marshmallows, chamemel flowers, Bay berries, &c. If there be wind or Excrements in the Guts we must premise a Clyster. Before it is replaced, it must be fomented, sprinkled, anoynted with things Agglutinative and astringent. *A suffumigation of the Skin of a Salt Eele*, dryed in the Smoak and poudered is commended. Seek for an astringent bath out of *Guilielmus Rondeletius*, his Cures. The manner of putting it up, see in Authors. 2. *In retaining of it*, and *then* the Woman must be placed in her bed bending downward, with her Thighes extended, so that one lie upon the other, the belly must be kept neither slow to stool, least in casting forth the ordure the Womb be forced down, nor loose, least the Membranes binding the Womb be relaxt. Agglutinative and astringent Medicines must be applyed. To this end serve, Pessaries, Fomentations, injections by a Syringe, and other things. But have a care you stop not the Courses with them.

The *Differences* are taken from the Causes.

I. One is *by reason of the Laxness of the ligaments*, of which it hath four; which *is known* by this, that 'tis generated by degrees, and afflicts with less pain. *It ariseth* either from hard labor, burthensome carrying of the young, or from the afflux of a Flegmatick matter. *'Tis Cured* by emptying of the Humors, by the use of things astringent & strengthning, as are *the Decoction of Oake moss, Harts horn, Bay Leaves*, an astringent Plaister. *A Loadstone* prepared and applyed.

Another is from *the breaking of the Ligaments*, which *is known* by this, that the evil ariseth of a suddain, afflicts with greater pain, & sometimes is followed with a flux of blood. It *ariseth* either from the Heavy carriage of the young one, or from hard labor, or from abortion, or from a violent drawing forth of the Secundine.

Another from *the Corrosion of the ligaments*, and then there are signs of an Ulcer, some matter flows out.

Article, VIII. *Of the ascent of the womb, its wounds and Ulcers.*

That the womb may ascend out of its place towards the upper Parts as high as the stomach, is the Opinion of some, but false. For. 1. 'Tis so tied with four ligaments, that it cannot be moved upwards at al. 2. Although it have a natural motion by fibres, yet because 'tis tied to the right Gut and Privities, if it had an Animal motion, those parts also must necessarily be distended. 3. Although it swel with wind as was said formerly, yet it follows not from thence, that 'tis moved upwards. But that Women sometimes do feel a body and a Globe as it were running about the Region of the Navel, we must say, 'tis rather the Testicles and that blind Vessel, than the Womb it self. The Cause of this shal be explained in the suffocation of the Womb.

II. Concerning *wounds of the womb*, note, 1. That the Womb is hardly wounded, because 'tis on every side guarded with bones. 2. If it be wounded, 'tis known by the Situation, pain and matter that flows forth. 3. That it may be cured, as appears by the Cæsarean birth, but 'tis dangerous by reason of the consent of the part with other members. 4. Or it happens on the bottome of the womb, and then that pain is less, and easier Cured, or on the Neck, and then the pain is greater and har-

der to be Cured, because that is more membranous and continually abounds with moisture.

III. Concerning *Ulcers* we meet with nothing of worth, which hath not been touched on formerly, unless perhaps we may add, that it doth somtimes so Putrefie, that it must be cut out, and fals away the woman surviving. For consolidation do serve, *the Balsam of sulphur, and the Plaister of the same,* (concerning which see *Hartmans* Chymiatry in the Chapter of a Consumption.)

[Read more of this subject in the Guide to Physick and Chyrurgery, *Riverius* Practice of Physick, and his Observations ; and the *London Dispensatory*. Al of the last Editions, Englished by me.]

Title, XII. *Of the Symptomes of the Womb.*

Chap. 1. *Of the Common Symptomes.*

Article, I. *Of the weakness of the womb.*

THe Symptomes of the Womb, are either *common to Women in al states*, or are, either *more familiar to those that live out of wedlock*: or *proper to the married.*

Those common are, *a weakness of the womb, Pain, a stoppage of the Courses, a dropping of them, too great a flux, a difficulty of them, a discolouring, an inordinate flux, a womans flux, a gonorrhea.*

A weakneß of the womb is a sluggishness or defect of the same, in performing its actions, induced by the fault of a distemper, occult qualities, and the native heat.

The SIGNS are, a languishing desire of venery, an inordinate flux of the Courses, when they are at hand, a pain in the loyns and pecten, little or no pleasure in copulation, often aborcions, a breaking forth of wind from the womb. For the actions of the womb are, a desire of Venery, a voiding of menstruous blood at due times, the ejection of seed in the act of Venery, and the retaining of that received from the man, a keeping of the young one conceived to the due time, and the exclusion of it when 'tis perfect into the world.

The Nature of *the Causes* shal be explained in the Differences.

The Cure must be directed against the Causes (of which there.)

The *Differences* are taken from the Causes.

One is from *the distemper of the womb*, which if it be *Cold* the womb cannot perfect a mean quantity of nourishment, therefore it heaps not up many Excrements. If *moist*, neither the blood, nor seed, nor young one are rightly conteined. See the Cure above.

Another is from *occult qualities*, which the womb hath is apparent from hence, because it hath a singular Sympathy and antipathy with divers things; desires mans seed, is delighted with sweet things, &c. And then the affect riseth from no evident Cause. There is found no excess of moisture or coldness. *In the cure* Medicines must be applyed that are proper by their whol substance.

Another is from *the innate heat, either choaked, or dissipated*, and then the affect is dangerous, because the heat is difficultly renewed. *In the Cure* we must act with restauratives, as are, Cinnamon, Nut-Megs, the Species Diaxyloaloes, Aromaticum Rosatum, &c.

Article, II. *Of the Pain of the womb.*

A Pain of the womb is a sad sense of the same proceeding from a solution of continuity induced by its Causes.

There is no need of *Signs* when the Woman her self makes known the pain. It affects both Women that are free, and great with Child, and past labour. It torments as pains of the collick do in the lower belly, whenas the ligaments of the Womb are carried to the Hips and Loynes, so far also it extends it self.

The *Cause* is whatsoever can dissolve continuity.

The *Cure* respects, 1. The mitigation of pain by anodynes. 2. The removal of the Cause, of which in the Differences.

The *Differences* are taken from the Causes.

I. One is *from corrosion*, which cheifly happens in Ulcers, the Womans flux, vitious Courses

Courses, &c. It offends most of al the Neck of the Womb. *The Cure* must be directed against those affects.

Another from *distention*, which is caused. 1. *By a clot of Blood*, sticking in the Cavity of the Womb, and *then* a plentiful flux of Blood preceded from the womb, the pain is fixt, and is perceived most of al about the Orifice of the womb, when as Nature by the continual endeavoring to expel it doth draw the right Gut and bladder into consent, 'tis joyned with a tenasmus and often pissing. *In the Cure* we must respect, *the dissolving of the clot*, for which Treacle with Wine is commended, and the *emptying of it*, and if hath stayed long there *the Malignity of it*. 2. *By Menstruous blood*, when either the Vessels are not wide enough, or that is too thick; which also may happen from cold drink, especially if the woman were hot after exercise, and then the Causes went before which occasioned it, there are signs of the Courses suppresst or not flowing rightly. *The cure* must be directed to the same. 3. *By vitious Humors*, sticking in the Cavity or Vessels of the womb; and then we must act with emptyers and preparatives. 4. *By wind* which ariseth from the boyling of the vitious Humors. Which somtimes copulation causeth. And then emptying must be ordered, we must act with things that discuss wind, of which in the Chollick. 5. *by an inflamation of the womb*, of which formerly. 6. *By seed retained and corrupted*, and then we must look to the suffocation of the womb.

Article, III. *Of the suppression of the Courses.*

A suppression of the Courses is a retention of the menstruous blood, by reason of the streitness of the passages, or the fault of the blood.

The SIGNS are afforded from the relation of the woman her self, but if they wil not confess, *In Virgins 'tis known* by this, that the blood stopt doth wander up and down in the Veins, and cause obstructions, changes the colour of the body, induceth a Feaver, &c. *In women* that 'tis carried to the womb and infers Diseases of the womb. *'Tis distinguisht from the retention in childing*, because they with Child are little changed in the affections of their mind, they retaine the Native color of their body, they find the Symptomes dayly more mild, they perceive the motion and situation of the infant the third month. They have the mouth of their womb shut up and hard.

The CAUSES are a streightness of the veins, and the fault of the blood, of which in the differences shal be treated more at large.

The *Cure must be hastened* because that suppression doth produce many diseases, as a feaver, a leucophlegmatick, a dropsie, vomiting of blood, &c. *'Tis difficult* if it be of long continuance, if it hath exceeded the sixth month for the most part 'tis thought incurable, especially if it happen from a perversion of the neck of the womb, for then the woman swoundeth, and vomits flegme, the parts of the belly and pecten are pained, the back bone, and a feaver happens. The excrements of the belly and bladder are suppresst, a weariness possesses the whole body by reason of the diffusion of the blood retained through the whole, it most of al detains the thighs and hips by reason of the consent of the veins of these parts with the veins of the womb. 'Tis of good success, if it be emptied through other places, so it be not through the bladder, because the blood doth clot most of al in that. *It respects.* 1. *Bleeding*, for the blood which stops every month, is heaped up in the body, and sticking in the veins it must be recalled to the wombe. Concerning this *note* a vein must be opened in the ancle, because, so both the quantity of the blood is diminisht, and its motion to the wombe is procured. If it must be repeated, one day blood must be taken from one leg, the next from the other. That which is ordered from emptying, ought to be opened at the beginning, that which is opened in the ham or ancle, after purging must be done three, four, or five dayes before the time of the accustomary evacuation. Cupping-glasses which are deputies of bleeding, must first of al be applied to the remoter places, viz. the thighs, then to the neerer, to wit the hips. Hither belong ligatures, frictions, the time of the courses being at hand, after emptying of the whole body. 2. *The preparation of the matter*, and for this serves in flegmatick bodies, *the decoction of guajacum with ditander of caudy* without provoking of sweat. 3. *Emptying*, which must be ordered at times, that the matter may be empteyed by little and little. Amongst *evacuating medicines* are commended, *agarick, Galens hiera with castor, aloes with the juice of savin.* Pils *made of aloe socotorina three drams; the best myrrh one scruple; extract of callamus aromaticus, carduus benedictus, saffron, of each three grains; of the rootes of gentian, dittander, each five grains, with syrup of bay berries*, and given *one scru-*

ple weight in the evening before supper. 4. *Opening obstructions* by those things that move the courses, the cheife are *inwardly* given, the decoction *of rosemary with the flower of wal flower* in wine. *Zacutus his chalybeat wine* l. 2. c. 10. his *water* in the same place, *Pennyroial* water *twice distiled with cinnamon water*. The extract *of Zedoary, angelica, castor*. The fæcula *of bryony, the earth which is found in iron mines, given in the same quantity, order, and forme, as steel is*. The spirit *of tartar*, *Hartmans* lozinges *of Crocus martis*. Outwardly, *Zacutus* his oyntment *of steel*, l. 3. histor. p. 52. the fat *of an eele, of a snake* with the distilled oyl of savin. A suffumigation *of the refuse of Regulus antimonii*, of which in *Hartman*. 5. *A discussion of the remainders*, by sweaters, viz. with a draught either of *Zerceans. milium solis* in his pharmaco. restituta. Or with a *chalybeate* decoction *with spirit of tartar*, the juice of elder, &c.

The *Differences* are fetcht from the Causes.

I. One is *from the obstruction of the veins of the womb*, which *is caused* by cold and thick blood, viscous and thick humors mixt with the blood; proceeding *either* from a hot distemper of the womb, which dissipates, the subtil and sharp humors, leaves the thick and earthy parts; *or* from a cold constitution of the liver and spleen; or from the like nourishments, especially if in the time of the menstruous flux they be dissipated, when the force of the blood is greater: and then the time of the purgation being at hand, pains are felt in the loins and neighboring parts, if any thing flows forth, 'tis mucous, somwhat white, and somwhat black: there is a dulness in the whole body, with a white colour, a rare pulse and crude urines.

Let the *Cure* be fetcht from what hath been said before.

Another *from compression*, which is either from *external causes*, as the northern air, staying in cold water, and then the relation of the patient will unfould it. The blood must be drawne to the lower parts by frictions, bandages, baths. Or from *internal* causes, to wit the fat of the womb, or tumors of the neighboring parts, and then the tumor must be taken away with convenient remedies. Things that move the courses have no place here.

Another is *from a constipation* whiles the substance of the womb it self is hard, which is either *from the first birth*, and then 'tis not easily taken away; or *after the birth*, from a cold and dry distemper; of which formerly.

Another from a *growing together*, which is caused: 1. *By a skar* left after an ulcer. 2. *By flesh or a membrain* growing over the vessels of the womb. 3. *By often abortion*, after which those veins to which the secundine adheres, doe so grow together, that afterwards they cannot be opened.

II. One is from *a defect of blood*, which either *is not generated*, either by reason of external causes, viz. hunger, too much evacuation, issues, &c. or of internal, as a cold constitution of the principal parts, old age, feavers. Or *'tis converted to other uses*, as before ripe age into the augmentation of the body, in women with childe to the nourishment of the young one, in those that give suck into milk, in fat folkes into fat. *Or 'tis wasted*, either by reason of external causes, to wit, exercise, too much labour, frights, sadness, baths, hot houses, which by provoking plentious sweats, do both carry the blood to the circumference of the body, and waste its serous part, which gives fluxibility to it: or internal, as are hot and dry diseases, too great evacuations made by other parts, &c.

Another from *the dryness of the blood*, which is caused, by adustion, when in the winter time women put light coales under their lower belly to drive away the cold, and then we must act with coolers and moistners.

Article. IV. *Of a dropping, and difficulty of the courses.*

The dropping of the courses is a breaking forth of the menstruous blood either for many dayes, or continually, yet made by drops.

There is no need of *Signs*, when the fault is made known by the relation of the woman.

The *Cause* consists either in things external, or in the blood, or in the vessels.

The *Cure* follows the Nature of the Causes.

The *Difference* is taken from the causes.

One is from *external causes*; exercise, hot medicines, and other things that diffuse the blood and open the passages; and then there is a greater pouring forth of blood.

Another is from the *faculency of the blood*, the waies not being open enough, and then it happens with pain, in the cure opening a vein

in

in the arm takes place. Purging by little and little ought to be urged.

Another is from *the weakneſs of the retentive faculty*, there comming together a plenty of blood, a thinneſs and ſerosity; and then no pain urges. We muſt act with medicines that ſtrengthen the womb with aſtriction and dryneſs.

II. *A difficulty of the courſes is a flowing of them with pain and trouble, and greivous ſymptomes, by the default of the veins or blood.*

The ſigns are taken from the relation of the patient; thoſe pains are, of the head, ſtomach, loyns and lower belly. The flux is either altogether, or only by the way of dropping, and ſomtimes when the courſes are at hand, ſomtimes when they flow, the ſymptoms happen, and they do more afflict virgins and the barren, becauſe the veins of their wombes are leſs open, than thoſe that have brought forth, becauſe their veins after breeding are dilated.

We ſhal treat *of the cauſes* in the differences.

The cure reſpects, 1. *The Symptoms*, which muſt be mitigated, 2. *The cauſes*, which muſt be taken away.

The difference is taken from the cauſes.

One is from *the ſtraitneſs of the veins* of which we have ſayd enough in the ſuppreſſion of the courſes.

Another from *the faults of the blood*, that is. 1. *From the thickneſs and feculency of it*, and *then* the blood whiles it is emptyed, grows into clots, the pains grow feircer a long time before the evacuation by reaſon of the endeavors of the expulſive Faculty. *The cure* (premiſing univerſals) is perfected by things attenuating, and that have power to diffuſe it. 2. *From the acrimony, proceeding from the mixture of ſharp humors*, and *then* the genital parts do itch, the nature of the blood voided and manner of the pain diſcovers the diſeaſe. We muſt act with things that qualify the acrimony, as are the Four greater ſeeds, violets, the flowers of water lillies. 3. *From the flatulency*, and *then* the pain returns by intervalls, and of a ſudden grows ſharper, wanders up and down, wind being voided it ceaſes. *It is cured* by emptying of the matter, and diſcuſſing of wind.

Article. 5. *Of the diſcoloring of the courſes.*

The diſcolouring of the courſes is a declining of them, whenas they ought to be ruddy, to a palneſs, whiteneſs, greeneſs, yellowneſs, or lividneſs, by default of blood.

The ſigns are afforded from beholding the blood it ſelf, there is added a ſtinkingneſs, an inordinate evacuation, and oftentimes ernick Feavers, accute, horror, loathing of meat, pains of the ſtomach &c. concerning which ſee *Hippocrates*.

The cauſe is layd upon the falt of the blood, concerning which, as alſo of its cauſes, ſee in the differences.

The cure attends the cauſes, therefore according to the nature of them it varies.

'Tis divided twofold.

I. One is *when the blood contracts a fault*, either by reaſon of a diſtemper of the whol body, or of ſome principal part, reſpect to which muſt be had in the cure.

Another, *when the blood is in fault*, either becauſe 'tis ſuppreſt and retaind, and *then* a ſtoppage of the courſes went before, pains are felt in the breaſt, and ſtrong pulſations; if the habit be better, the courſes break forth, and the blood flows forth, and a ſtrong ſmelling matter, about the eight or ninth day. *Or* becauſe 'tis polluted by the womb abounding with excrements, and then there are ſigns of a polluted womb.

Another *when the blood it polluted by the mixture of excrementitious humors*, and *then* if you conſider the cure, we muſt prepare them, but ſo, that whenas thick humors do want attenuation, and things too much attenuating do melt the ſerous humors, and move them to the womb, we muſt abſteine from the ſtronger. and beware of vinegar; we muſt empty &c.

II. One is *when the courſes decline to a whiteneſs*, which *ariſeth* either *from flegm*, of which howſoever it be there are ſigns of a weak ſtomach; or *from matter*, and *then either* ulcers are raiſed in the womb and barrenneſs follows, *or* the courſes flow forth for ſeven or eight days and the woman is freed; *or* the ſame break forth at the parts above the groin without a tumor and about the hypochondries they come forth and the woman ſeldom ſurvives. Or after ordures a great tumor riſeth upon the groin, ruddy without a head, becauſe there the fleſh is filled up, and 'tis hardly opened.

Another is *when it declines to yellowneſs or greenneſs*, which proceeds from choler.

Another, *when to a lividneſs*, which ariſeth from melancholy.

Article,

Article 6. *Of an inordinate flux of the courses.*

An inordinate flux of the courses includes two things, to wit, an anticipation of the courses before the due time, and their continuance beyond the accustomary time.

The anticipation of the courses is divided according to the nature of the causes.

One is from external causes, viz. a fal, a blow, and other things that open the veins. See the cure below.

Another from the *irritation of the expulsive faculty of the womb.* 1. *By the plenty of blood,* which *is known* by this, that the blood is sent from the whol body to the womb, 'tis fluid and natural; there are signs of a plenitude. *'Tis cured,* by bleeding, if the plenty be great, by dyet and often exercise, if it be less. 2. *By the thinness and acrimony of the blood,* which is known by this, that the temper of the whol body is hot, a course of dyet generating such blood went before, the blood it self is dilute, discolored yellowish. *'Tis cured* by emptyers, rhubarb especially; by qualefyers, of which formerly.

Another from *the weak retentive faculty of the womb,* which *is known* by this, that the vessels of the womb are loose, the habit of the body also is lax and moist. The cure forbids things too much astringent. Acid waters and baths that have the vertue of iron are commended.

II. *The continuance of the courses beyond the accustomary time is divided also according to the nature of the causes.*

One is which proceeds from *the disappointment of the expulsive faculty,* which is caused, 1. *By the scearcity* of blood, which *is known* by this, that the woman finds no trouble by the protraction of her courses, & that too much exercise or slender dyet went before. 2. By the *thickness of the blood,* which *is known* by this, that there are signs of a cacochyme, the blood is whitish and viscous. *In the cure* we must purge before much blood be gathered together, attenuate when the menstruous purgation is over; *calamint and mercury* beare the palme; some days before the monthly purgation, we must open, scarification of the ankels takes place here.

Another which ariseth from *the weakness of the expulsive faculty,* which is induced, 1. *By a cold distemper of the womb,* of which formerly, 2. *By a stupidity of the same,* which *is known* by this, that there are present disease causing stupidity, or too great use of coolers went before, after the due time of purgation, though there be present abundance of blood, no heavines is perceived by the woman. In the cure we must have respect to the disease and its causes.

Article, 7. *Of too much flowing of the courses.*

The too much flowing of the courses is either a too plentiful or more continued purgation of them than is convenient, arising either from the fault of the blood, or of the womb, or of the veins.

There is not much need of *signs,* especially if there follow a want of appitite, crudety, an evil color of the face, a swelling of the feet and the rest of the body, an atrophy, cachexy &c.

The cause we have layd on the blood, the womb or the veins; but whence these are in fault, shal be explained in the differences.

The cure is *difficult* if it be of long continuance. None at al, if it happen to a woman growing old. *It requires,* 1. A *restraint of them* by revulsion, interception, thickning of the blood, stopping up the vessels by astringent means and other things. Yet it must be stopt by degrees, if there be a great plenty of blood, and it happen by way of crisis, the which falls out seldom. Here take place *Heurnius* his pouder, *of the seed of white henbane, white poppy, each one dram; of the bloodstone, red coral, each half a dram; camphure half a scruple given half a dram weight.* The pouder *of amber, sanguis draconis, the bloodstone, red corral, purslane seeds, each one dram; pomegranate flowers two scruples; easterne bole armenick two drams; given from one dram in three ounces of plantane water. Asses* milk *with steel. Ferdinandus* his aqua *mirabilis.* histor. 33. The trochisks *de carabe, the bones of a man strongly calcined.* Zacutus *his pills, l. 9. prax. histor. p.* 185. *His* plaister there. The plaister of saxonia made of the *sut of a chimney, volatil floure &c.* a pessary *made of hoggs and asses dung with the juice of plantane and the mucilage of quinse seeds.* Specificks are, *inwardly, Forestus* his pouder *of a turtil,* l. 28. obs. 10. The salt *of the ashes of the same,* the thin skin of geese feet dryed and given from one dram, to two scrupels. *Outwardly,* a girdle of the leaves of bastard black hellebore bruised. Of which *Renealmus,* obser. 21.

The differences are divers, which do cheifly respect the causes. *The*

I. One is *from blood*, which, 1. either *is derived from the bottom of the womb*, in which the blood is blacker and for the most part clotted. Or from the neck, which is more ruddy and fluid. 2. 'Tis either *plentiful*, or *sharp*, or *serous*. Of which in the following difference.

Another from the moistness of the womb, of which see formerly.

Another from *the fault of the Veins*, concerning which consult with the third difference.

One is from *plenty of blood*, which is *known* by this, that either the vessels are opened or broke, in women especially, whose courses have stopt a long while, and afterwards do breake forth more plentifully. There are signs of a plentitude, the blood which comes forth, doth easily concrete into clots. *In the Cure* we must respect. 1. *Bleeding*, which if it be ordered for evacuation, it concernes a vein in the arme, the liver veine cheifly. If the strength be feeble, 'tis ordered in the salvatella of each hand, if it be for revulsion, it must be done at several times, because being repeated it revells more powerfully. 2. *Cupping-glasses*, which for evacuation may be applied to any part, if you except the lower, as to the back, shoulders, and that with scarification; for revulsion they ought to be set to the breasts without scarification, and upon a difficulty of breathing ensuing they must be removed. 3. *Ligatures, frictions of the armes, &c.*

Another from *sharp blood*, which is *known* by this, that there is a corrosion of the vessels joyned with it, there are signs of choler. The blood is detained and corrupted in the womb, it slides forth in greater quantity. *In the Cure* let purging be administred by syrup of roses solutive and leaves of senny. See things that thicken it above mentioned.

Another from *serous and watery blood*, which is *known* by this, that either the liver is faulty by its weakness, or the kidnies by reason of their weakness do not attract the serum. The blood flowes forth in lesse quantity and is not easily clotted: that which is flowed forth, if it be received on a linnin cloath, and dryed in the shade, discovers it self by the colour. The *Cure* attends the diseases themselves.

II. One is from *an Anastomosis*, in the cure of which observe, that hot things ought to be mixt with cold least the veins be obstructed, the ventilation of heat be prohibited, and a feaver induced; that pessaries may be applied if the opening be in the vessels of the neck, where oake leaves and *unguentum Commitissæ* are good; that baths must not be used unless they be somwhat cold, or whose astringent power overcomes their heat.

Another is from a *Diapedisis*, which happens very rare, it presently requires astringent topicks.

Another from a *Breaking*, which happens either from a plenitude, or from causes that stir the blood, especially from hard labor, and premising the opening of a vein if there be need; 'tis cured by conglutinating medicines.

Another from a *corrosion*, which is *known* from hence, that little blood flowes, sometimes purulent, sometimes serous. *It ariseth* from a sharp and corrupt blood, sometimes also from sharp medicines, amongst *Astringents* is commended *the root of dropwort, or 'its decoction.*

Article. VIII. *Of the Womans flux and gonorrhæa.*

The womans flux, which otherwise is expresst by the name of the whites, is an inordinate voiding from the womb, of an excrementitious humor by its whole nature differing from blood, collected by the fault either of the whole, or of some part.

'Tis called the *womans*, because it affects women, and truly virgins also, when as the causes take place in them, and there are examples of it. Yet more commonly those of *riper age*, especially if they be indewed with a moist and cold constitution, do lead a delicate and idle life, and feed upon cold and moist nourishments: *old women also*, and that unto death, by reason of the plenty of flegm, and the weakness of the concocting faculty.

There is no need to enquire *the Signs*, the affect is made known by the relation of the patient her self. *It differs from a gonorrhæa*, because in that the matter of the seed flows forth, whiter, thicker, and at longer intervals, and 'tis voided in less quantity. From a nocturnal *polution*, because this is joyned with a phansie of a venereal business, and happens only in the sleep. From the *discolored courses*, because they observe their periods, though not alwaies exactly; they do not happen to women with child, and those troubled with the suppression of the courses, they shew a red colour. From *matter out of the ulcers of the womb*, because then the signs of an ulcer stand forth, the matter it self is thicker and whiter. If it be sanious 'tis besmeared with blood, and voided with pain.

We

We have laid *the Cause* upon an Excrementitious Humor, which Sometimes is raised by purging Medicines, Nature being stirred up by their use to attempt excretions, sometimes by Baths, Nature casting off by this way those Excrements which could not be driven forth by sweat.

The cure must be hastened, for it makes women Barren for the most Part, unless perhap it be emptyed through the Vessels of the Neck of the womb, it casts the same into an Atrophy, consumption, Melancholy, Dropsie, Falling down of the womb, swounings and Convulsions. Hence though at the beginning 'tis scarce Cured, yet afterwards 'tis more difficult. For the whol body accustomes it self to cast off the Excrements through that way, and the womb being rendered weaker collects Excrements. It varies according to the nature of the Causes.

The *Differences* are taken from the part that tends them, and the colour of the blood.

I. One is from *the whol*, which *is known* by this, that there are signs of a Cacochymy in the whol body, the flux is more plentiful. *In the Cure.* 1. *Bleeding* must be shunned, both because the Humors ought not to be recalled into the Veins to pollute the blood, and because the strength is dejected by the long continuance of this affect, and the body wasted. 2. *Discussion* is very wel performed by Decoctions *of Guajacum, China, and lentisk wood, &c.* 3. *For drying, the Root of dropwort*, is very much commended. For binding, *the ponder of mans bones, the ashes of Capons dung in rain water. Zacutus* his Plaister. l. 9. c. 11. Prax. History, which ought to be applyed to the Kidneys. 4. Sleeping on the back must be avoided, least by the heat of the Loyns, the humors be carried towards the womb. 5. Frictions of the upper parts are good for aversion.

Another is from *some part besides the womb*, and *then* there are signs of the part affected, in the cure we must have regard unto it.

II. One is from *the womb*, which *is known* by this, that there are signs of the womb affected, the flux is not so plentiful. It *ariseth* from the distemper of it, of which in the Cure we must have a regard. *Suffumigations of Frankincense, Labdanum, Mastick, Saunders are wel* applyed; but from what Cause soever it ariseth, *baths* do most good.

Concerning *a Gonorrhœa*, if any thing ought to be known, let it be sought from those things which are said concerning a mans gonorrhœa.

Chap. 2. *Of the Symptomes more familiar to those that live out of Wedlock.*

Article, I. *Of the Virgins Disease.*

THe Symptoms more familiar to those that live unmarried are, *the Virgins disease, the suffocation of the womb, the madness of the womb, and the melancholy of women.*

The Virgins disease (otherwise the white, the Virgins, the Pale, the Lovers Feaver) is a change of the natural color in the Face into a greenish and pale, proceeding from the abundance of crude Humors.

'Tis called *the Virgins*, because it appertains most of al to Virgins, and truly to the Fairer, endued with a white colour, thence the Tincture from crude Humors is the easier.

The Face it self wil afford us *the Signs*, to which add other Symptomes, as the pain of the Head, sometimes madness, the Humors and Vapors being carried thither and mixt with Melancholy; a difficulty of breathing with a palpitation of the heart, if they stir, with a smal and frequent pulse of the Arteries in the Neck, back, and Temples, by Reason of the lifting up of Vapors from the heating of the thick blood, inordinate and erratick Feavers by reason of the Putrefaction of the Humors, manifold affects of the Stomach, amongst which loathing of meat, by reason of the unhappy distribution of the Chyle. A Pica from the abundance of evil humors in the coats of the stomach. Vomiting from the great plenty of crude Humors, both a distension of the Hypochondries, from the reflux of the Menstruous blood to the greater Vessels and a rumbling from the tumultuation of wind. A swelling as wel of the whol body with a laxness and softness from the plenty of the Humor, as either of the Eye-lids, especially in the morning after sleep, when in the night the heat hath raised more Vapors and serous Humors than could be discussed; or of the Legs and Feet, especially about the Ankles from the abundance of serous Humors.

The

The CAUSE is the crudity and plenty of Humors, arising either from the suppression of the Courses, or from the Native straitness of the Vessels, or from that acquired by eating of wheat, Loom, Chalk, earth, Nut-Meg, drinking of Vineger, &c. Or from the obstruction of other bowels. For the Menstruous blood, the Passages not being open, doth regurgitate to the greater Veins and Bowels, obstructs the Vessels, and over whelms the heat. Hence ariseth evil concoction in the Bowels, and the Humors are carried to the habit of the body.

The CURE is accomplisht. 1. *by bleeding*, especially in the Ankle if the malady be new; and the blood is not turnd into another humor. If it ariseth from the Evacuation of blood suppresst. 2. By *Purging*, premising Preparatives. 3. By *opening obstructions*, in which we must have respect to al the bowels; the suppression of the Courses must most of al be minded. There are commended, *Steel prepared, Scorzonera Root, Bezoar stone, Oyl of Crystals*, &c. In the diet Vineger must be voided.

Article, II. *Of the Suffocation of the womb.*

The Suffocation of the womb is a heap of Symptomes opposing somtimes the natural actions, somtimes the Animal, somtimes and more often the vital, by periods, joyned with a coldness of the whol Body, proceeding from a malignant Vapor raised from the womb.

'Tis called also *the Suffocation of women, the strangling from the womb, the Hysterical passion*, &c.

The SIGNS are either *of that at hand*, a wearinness of the whol body, with a weakness of the Legs, a paleness of the Face with a sad look, a nauseousness which is seldome succeeded with vomiting, oftentimes a certain wearisomness, and loathing of meat, and that somtimes with a murmuring and rumbling of the belly, somtimes without these. Or *of that present*, in which a Vapor raised up to the heart, and stopping the vital spirits, a smal fainting away is Caused, the Pulse is changed a little, the body grows cold, the spirits recurring to the heart, fear and desperation moves the patient; the same thrust to the Head and Jaws, somtimes the Jaws are bound up, and the Patient seems to be suffocated. The motion of the breast and Midriffe is hindered the Animal spirits being stopt, and breathing is almost intercepted, the sick living in the mean while by Transpiration; somtimes a madness of the womb is added with prating, and fury, somtimes other kinds of madness arise. Somtimes sleep and a drowsie Disease is induced, in which the woman falling as astonisht, lies without motion, without sense, with such smal breathing that she seems dead. Or *of the fit declining*, and then a certain Humor flows forth from the Privities, the Guts murmur; by and by the Eyes are lift up, the Cheeks grow red, sence and motion return. Somtimes a coldness at the time slides from the Head by the Neck into the shoulder and Arme, which makes motion difficult, but presently 'tis discust. Yet al these Signs do not happen in al. There have been those who were troubled with continual laughing the Vapor insinuating it self into the Membranes of the Breast; there have been those who seemed to frame the hissing of Serpents, the croking of Crows, &c. According to the proportion of the passages and breath breaking forth. *It differs from an Epilepsie*, because in this the Convulsive motions are more universal, they have no remembrance of those things after the fits which happened to them in the fits, the Pulse is greater than before, a foam flows about their Mouth. *From an Apoplexy*, because in this the fit is suddain without any notice; a singular snoaring afflicts them in breathing, there is so great a resolution of the Parts, that though they be prickt yet they do not feel. *From a Syncope*, because there are no presages in this of the fit to come, the pulse failes to the sence, cold sweats afflict, it vanisheth in a short time, when as the Hysterical passion lasts somtimes a day or two. *From the dead*, they are distinguisht by Sneezing, Caused by Sneezers and other means.

The CAUSE is a malignant Vapor, thin and spirituous, in one moment penetrating the whol body, and raised from the matter corrupted after a peculiar manner in the womb, and stirred either of it self or by external things, as things sweet-smelling, fear, Anger; and ascending upwards not only by the Veins and Arteries, but also by occult passages. But what that is shal be said in the Differences.

The CURE *is somtimes of doubtful hopes*, If it long afflict old women, because it infers an impeachment of the strength, and shews a

plenty of humors. If it happen to breeding women, a hard labour or abortion going before; if it assaile great bellied women, because it strikes a feare of abortion; *of better hopes*, if breathing be not hurt too much, if the fits do not return often. *It respects.* 1. *The time of the fit*, where care must be had. 1. *To intercept it*, by binding of the belly about the navel with a girdle made of the skin of a hart kild in the act of copulation with the doe. 2. *To raise her* by ligatures and painful Frictions, by pulling off the hairs especially of the priveties, by suffumigations made *of partridg feathers horses hoofs, an Eel skin.* By applying *of assa fœtida oyl of tartar* to the nose, &c. 3. *To reveal* by ligatures & frictions of the lower parts, glysters discussing wind, cupping-glasses without scarrification applyed with much flegm, first to the ancles and thighes, by and by to the groines, by putting up sweet things into the privities, as are oyl of Civit half a scruple; with oyl of nutmeg by expression one scruple. 5. *To discuss*, and that *outwardly* by oyl *of white amber* with the pouder of walnut flowers. By extract of castor, *of liver-wort. Mynsichtus his specificum diajovis.* The same Authors Theriaca *mulierum. Hartmans* essence *granorum Chamæactes*, in pennyroyal water, Treacle water & others that are appropriate. Outwardly by putting into the navel *oleum Jovis*, the salt *of the same described by Crollius.* By plaisters made *of the fat of a black cow fed with utrine plants*, clary *boyld in butter*, adding *gum tacamahach, & carama.* 2. *The time out of the fit, in which* 1. *We must empty by Grulingius* his extract *of bryony*, of which in his cures, by Agricola his flores *vitrioli Veneris et martis.* 2. *The womb must be strengthened by things internal and external that do resist the malignity also.* The fæcula *of briony* is commended, *Castor*, &c. 3. *That diet* in which odoriferous and sweet things are, which are wont to move the womb, must be shunned. *For preservation* see *Zacutus his Hysterical Pils.* Prax. Hist. l. 9. c. 12.

The *Difference* is taken from the causes.

One is *from the seed* corrupted by the fault of the parts or humors mixt with it, and sending forth such a vapor, which is *known* by this, that the courses are right in the patient. Al the Symptoms are more vehement, the fit declining a humor like to seed flows forth of the privites. *'Tis Cured* (universals premised) by emptying of the seed by glysters, and utrine pessaries, by prohibition of the same, by medicines diminishing the seed, or by slender diet.

Another *from menstruous blood stopping*, and therefore corrupt, which is *known* by this, that the menstruous blood is joyned with vitious humors, especially a melancholly one. The symptoms are milder, with the signs of a suppression. *The Cure* must be turned against the suppression of the courses.

Another *from vitious humors*, concerning which consult with the chapter of the distemper of the womb.

Article. III. *Of the madness of the womb, and Melancholly of Women.*

The Madness of the womb is an immoderate desire of Venery, almost making women stark mad, arising from the plenty of seed, acrimony, and peculiar quallity of it.

The *subject* of this affect are, either wel flesht virgins, black, and having adust blood, or the youthful flourishing widows; or married women that are barren by the impotency of the husband.

The *Signs* are various, some wast away in sadness and silence suppressing their desire, others, reason being overcome do prate, are lascivious, break into anger, laughter, weeping, wanton and baudy discourses. Some freely prostitute themselves to men.

The *Cause* is the plenty, heat, and accrimony of the seed, which ariseth if you consider the internal causes, from the heat of the womb, the distemper of the stones especially, and spermatick vessels; hence many labor of an inflamation of the womb, and itching, which are not affected with this madness. *If the external*, from a diet generating plenty and accrimony of blood by a draught of hippocras, in which there was some *Borrax*, &c. dissolved.

The *Cure* is accomplisht. 1. *By bleeding* if blood do abound. 2. *By purging* if hot and adust humors be mixt with it. 3. *By alteration* by coolers, as are *Letice, Purslan, water-lilies, Ladies navil*, by things that act by an occult quallity, as are, *the chast tree, rue, hemp, Camphire, hemlock*, which are rather to be used in Nunneries.

The Melancholly of Women is a dotage with sadness, anxiety, weeping, or laughing by intervals, invading without a feaver, arising from a melancholly vapor, darkning the animal spirits.

The

The SIGNS are various, the women are sad, complaine of a grief at heart, yet are not able to expres the cause of it. The Arteries about the Spleen and back do beat more vehemently than usual, a pain of the left side against the heart afflicts, somtimes seazing on the left breast, the Vapors from the intercostal Arteries being poured forth into those places, and pulling and distending the Membranes of the Breast: a dryness of the Jaws somtimes troubles them with a suffocation. But these symptomes affect by intervals, because the Vapor is dispersed, and the stirring of the blood in the Arteries ceaseth.

The CURE respects. 1. *Bleeding*, which *must be ordered* at the beginning, if hot blood do urge it, 'tis to be admitted commonly in the Arme, if the Courses be not stopt, if otherwise, in the Ankle some daies before the flux; *it is to be urged*, sparingly if the evil be far gone. 2. *Preparation*, by those things, which alter the Melancholly Humor, and rejoyce the heart, as are *the Confection de Hyacintho and Alkermes*. 3. *Emptying*, by things that Purge Melancholly, with which, things proper for the womb must alwaies be mixt.

Chap. 3. *Of the Symptomes proper to married women.*

Article, I. *Of the Symptomes about conception.*

Point, 1. *Of Barrenness.*

THe Symptomes proper *to married women*, do respect, *Conception, going with Child, and the delivery.* The Symptomes about conception that meet us are, barrenness, and a mola.

Barrenness is an impotency to conceive, proceeding from the fault either of the Genitals, or of the Seed, or of the Womb, or of the menstruous blood.

There is no need *of Signs, the Cause and Cure* vary according to the Nature of the differences.

The *Differences* are taken from the Causes and Parts.

I. One is *by fault of the genital parts*, whether it be *a Closure* of the Womb from the birth, which may be artificially cleft; or *a tender Constitution*, either by reason of the Age or structure, for which a mans Yard is not admitted; or Tumors, Ulcers, and excrescencies in the Neck to which the Cure must be directed; and this is not properly called barrenness.

Another *by the fault of the Seed*, of which shal be treated in the following Difference.

Another *by the fault of the womb*, of which we wil treat in the third Difference.

Another *by the fault of menstruous Blood*, when *either* that is wanting, which happens either the womb being covered with a star, or the blood turning into Fat; *or* 'tis too Copious, that the Seed is overwhelmed and suffocated.

II. One is from *the defect and unfruitfulness of the Seed*, which ariseth. 1. By reason *of tender Age*, or too old. 2. by reason *of the distemper of the Vessels* dedicated to generate and contein the seed, and *then* the Woman in Copulation perceives none, or little and short Pleasure. There are Signs of the womb affected, or the whol body, or some member hath a Vitious Constitution. *The Cure* must be turned against the distemper of the womb. 3. By reason *of the Evil Conformation* of the same *Vessels*.

Another is *from want of a Proportion between the mans and womans Seed*, which consists between manifest and occult qualities; but cheifly it ariseth. 1. *From medicines* that extinguish Seed, as are a Goats commodity, Mint, Rue, Camphure, which either the patient, or standers by wil make known. 2. *From Inchantments*, and *then* the man cannot Copulate with his own wife, he can with others, he hath a desire to couple with his own, and if he do couple with her he cannot send forth his Seed. *In the Cure* is commended a drauft of cold water fallen from the mouth of a stone Horse drinking in a Current, and suddainly received in a Vessel.

III. One is *when the womb doth not attract the Seed that is cast in*, and that either by reason *of a cold* and moist *distemper*, of which formerly; or by reason *of some Organical diseases and solution of Unity*. Where note, that very often too much Fat, especially of the Caul, doth compres the mouth of the womb; that barrenness from Ulcers is hardly Cured, nay though a great Ulcer were Cured, yet that would remain by reason of the Skar left, for which the blood can neither adhere to the womb, nor flow thither.

Another is *when the womb doth not retain the Seed cast in*, and that, 1. Either by reason *of a moist distemper*, which is known by this, that the Fibres of the womb are Relaxt, that it cannot contract it self, the Seed by reason of its Mucousness cannot adhere to it. 'Tis retained for some few daies, then cast forth. *The Cure* must be turned against the distemper. 2. Or by reason *of the thickness of the womb*, for then the blood doth not slide thither, from which the Seed ought to be joyned to the womb, and take its increase. *The Cure* requires extenuation by a slender diet, exercise, purging, Sweating, and others. 3. Or by reason *of its Slipperiness*, and then a womans Flux or virulent Gonorrhea hath happened; the Seed conceived is extinguisht, and Rapt away. The cure must be fetcht from their places. 4. Or by reason *of the gaping of its Orifice*, and then either hard labor or abortion went before. The Fibers are so relaxt, that they cannot contract themselves. In the Cure amongst astringents, a Fomentation of the Leaves of Lentisk, Mirtle, &c. takes place. 5. Or by reason *of a Cough, Sneezing*, which happens after Copulation, &c. By which the Seed is shaked forth.

Another is *when the womb doth not alter the Seed injected*, and that either by reason *of a distemper*, when the womb by an immoderate coldness grow thicker, the Orifices of the Vessels belonging to them are very streit and narrow, whence neither the Secundine can be knitted to the Mouths of the Vessels, neither doth the blood flow in sufficient quantity, which is Serous too; or by reason *of organical diseases*, as Tumors, Ulcers, &c.

Point, 2. *Of a Mola.*

A Mola is a mass without bones and bowels from an imperfect conception, generated by the fault both of the mans and womans seed, instead of a Young one.

The SIGNS before the fourth month are not so exact that it can be certainly known, in process of time 'tis discovered by four signs. 1. *By motion*, for that is trembling and panting, rival to a constriction and dilatation, and it fals down like a stone with an eminent sence of a weight upon that side the woman turnes. 2. By *the figure and bulk of the womb*, For in that the Belly is lift up according to al dimensions, when in a true young one, 'tis principally raised towards the Navel, and is gently streched towards both sides. 3. *By want of milk*; for in a mola the breasts swel indeed, but there is produced in them only a certain crude matter, from the courses suppresst tending to the breasts, which in process of time vanisheth, when in those with child milk begins to be generated about the fourth month. 4. By *the Symptoms*, which are diverse, as difficulty of breathing, pains of the back and groines &c.

The cause is the fault of the seed, both of the Males and Females jointly, when the formative faculty is weak, either of it self, or because 'tis overwhelmed with blood. Whence molæ are wont to be made, if there be copulation when the courses are at hand, or flowing, or not wholy stopt. And of the womans seed severally, joined with blood, and then there are molæ altogether rude, and which being long exposed to the aire, being melted are dissolved into a watry substance. In virgins such a thing cannot happen, both because their weak seed wil not attract blood necessary to its conformation, and because the blood it self partly by its unaccustomedness, and the narrowness of the vessels of the womb in virgins doth not of its own accord flow thither. *In the cure*, 1. *bleeding* beares the palme, that the nourishment of the mola may be withdrawn, and it must be larger if the woman be plethorick, more sparingly if not so, in the ankle, or ham. 2. Strong and often repeated *purging*. 3. *Opening of the courses*. 4. *Chyrurgery*, of which see Authors. *Prevention*, requires. 1. That Copulation be not too often, especially in bodies not strong enough, by reason of the generation of weak seed. 2. That it happen not when the courses are at hand or flowing, or when the womb labors of a distemper.

See the *Differences* in physical observations, for this mass is not only without bones and bowels, but somtimes 'tis more membranous, viscous, fast together, not yeelding to iron. Somtimes it presents a long forme, rhomboidal, &c. somtimes 'tis destitute of all life, somtimes it lives the life of a plant. Somtimes 'tis voided with a child, without one, after one, and somtimes a dysentery goes before the voiding of it.

Article, 2. *Of the Symptoms of women with child.*

The symptoms of women with child are in a threefold Difference.

Some happen *at the first time of their bearing*

ing in the belly, and they are, 1. *A cramp*, troubling especially the leggs, which is taken away by anointing them by the fire with oyl of bays, putting on afterwards hot rowlers. 2. *The pain of the Sciatica*, with oyl of Venice turpentine anointed on drives away. 3. *Loathing of meat*, which ariseth from the suppression of the courses, the better part of the blood going to the young one, the worse remaining in the veins, from whence by agitation vapors are sent to the mouth of the stomach with the humors, a vitious quality is imprinted on it, and which ceases of its own accord when the young one is grown greater. 4. *A Pica*, or a desire to absurd meats, for taking away of which serves, the water distilled in the month of May from vine leaves. 5. *A nauseousness and vomiting*, which if it be easy ought not to be stopt, if difficult, 'tis not free from danger. 6. *Torments and pains of the belly*, which are raised by the wind from the humors about the womb, and sometimes do cast women into swouning fitts. 7. A *looseness*, which must be timely remedied, least abortion follow. 8. *A pain in the teeth* from part of the sharper humor carried thither. 9. *A pain of the head and vertigo* from the vapors sent forth, distending and troubling it.

Others trouble *in the middle months of their bearing*; and are.

1. *A cough* from a sharp vapor, or the veins of the breast, which by reason of the concussion of the muscles of the belly, watchings, pain of the head, is dangerous. 2. *A palpitation of the heart*, and faintings, which if it arise from plenty of blood, is a forerunner of abortion, and is cured by bleeding. 3. *Pains of the loyns and hipps*, either from the blood suppress falling upon the vessels of those places, or from the child growing bigg. 4. *A flux of blood from the womb, nose, hemrods*, which is caused. 1. *From a rupture of the vessels of the womb* by evident causes which are known from the relation of the patient, 2. *From plenty of blood*, and then the woman is endued with a good color, she beares the flux wel, there is less danger, if so be the flux be not too much, 3. *From the weakness of the young one*, not attracting the blood, and then for the most part, either the birth is protracted beyond the due time, or is difficult, or abortion follows; there are signs *of the weakness of the child*, that is, 1. *Either* the woman is troubled with a looseness of body, by which the nourishment is withdrawn from the young, or her courses flow often when she is with child, or the mother is often or long sick, whence ariseth a fault of the nourishment; or the breasts which were swelled ful before, are extenuated, for want of nourishment; in the common veins of the womb and breasts, or the young one which already had began to move, or ought to move, *either* is not moved, or moves weakly. 4. *From evil humors* goading the expulsive Faculty; and then sharp things, coloured, stinking, flow forth with pain, there are signs of a cacochymy.

Others *happen in the last months*, as is, 1. *A stoppage of the urine*, which ariseth from a compression of the neck of the bladder by the womb (it happens chiefly when they stand) 2. *A hardness and slowness of the belly*, which ariseth either from a compression of the gutts made by the young one it self, or by an extraction of the moisture caused by the same, in women that have a hot and dry liver and spleen 'tis dangerous, because by a violent straining to evacuate, al the parts in the belly being ful, some dammage may easily ensue. 3. *A tumor and inflation of the veins*, either *in the leggs* by reason of the weakness of the liver, of which in its place; or by the suppression of the more serous blood, and then the women with child for the most part bring forth girles. We must forbeare from the cure, because the humor is emptyed with the after purgation after the delivery, unless walking be hindered: or *in the hipps* that they become as it were varicous, which proceeds from the same cause. 4. *clefts of the skin of the belly* by reason of the distension especially at the first birth, which are prevented with the anointing of laxative liniments, as are marrowes, oyles. 5. *The effusion of water*, which in the time of bearing is collected between the membranes that involve the young one; which wants not danger, because both the young one perceives some trouble from thence, and a hard labor follows for want of moisture.

Article, 3. *Of the symptomes about the delivery.*

The symptomes that happen about the delivery, are also not a few.

1. *An untimely flux of blood before the birth*, whence is a weakness of strength and swounings. In the cure of which emptyers must be shunned, the aire forbidden, cordialls and strengthners must be given; when the mouth of the womb opens it self, the membrane must be broken, and the infant brought forth.

II. *Abortion*

II. *Abortion*, when the child is born before the lawful time of bringing forth, which *is feared* if the breasts be extenuated, because it is a sign that either the blood does fail in the veins common to the womb and breasts; or that by the violence of the young one or rupture of some vessels it doth rush to the womb. If plenty of milk flow from them. If the great bellyed woman have often pains about the belly and loins which end towards the pubes & os sacrum, with a certain endeavor to cast forth of her womb. If after them, blood either pure, or ichorous, or water flow forth. *It ariseth* in general from the fault of the expulsive faculty of the womb, which is irritated either by the young one, or by other diseases, by which also the retentive faculty of the same is wont to be weaked. *In particular* 'tis caused cheifly. 1. *From too much cold*, and *then* the pain which ariseth about the Region of the Kidneys descends to the lower part of the Belly, and afflicts like to Nephritical pains. See a Fomentation in *Ludovicus Burgesia*, p. 1. c. 6. 2. *From a sudden fright*, and *then* outwardly may be applyed the Fomentation even now mentioned; inwardly, a little Oxycrate. 3. *From a Swouning*, where the Confection of Alkermes, and *de Hyacintho*, take place. 4. *From Anger*, 5. *From a Flux*, and then drying Meats must be administred, the Patient must be kept in Bed, we must act with Cordials and Strengtheners.

III. *The Birth coming forth not Naturally*, where 'tis a common admonition, that the navel of the infant, what way soever it comes forth, be thrust back into the womb again. If it *be difficult*, and cannot be promoted otherwise, 'tis happily furthered by giving three grains of *Mercurius vite* in wine, as *Billichius* witnesseth in his observations.

IIII. *The stay of waters*, al other things being ready for the birth, and then the membranes must not be broken, least violence be offered either to the navel or some member; a fomentation ought to be ordered with warm water, which must be followed with a liniment of fresh butter.

V. *An immature falling down of the waters*, and then fresh butter is good amongst moistners, we must have a care of the outward air.

VI. *Collick pains*, which are taken away by giving oyl of sweet almonds with cinnamon water, or a carminative glyster following.

VII. *A weakness of strength by the birth*, and then may be administred, water of Tophies, Harts-Horn, Confection of Alkermes, Cinnamon water.

VIII. *The slow comming forth of the secundines*, either because they are *too thick* and tenacious and stick close to the sides; or because they swel by the long labor of bringing forth; or because the Navel is either *broke* or *cut off* before the Secundine is come forth. There are commended *the Secundines Specifick*, *the Eyes of a hair taken in March*, of which in *Hartmans* Chymiatry, &c. See *Burgesia*. l. 1. c. 14.

IX. *The Pains after birth*, by reason of the too great straitness of the vessels, which *are prevented* by giving of the Queens pouder after the first birth, which is compounded of the greater comfrey, one dram; Peach Kernels, Nutmeg, of each two scruples; Amber Greese, half a scruple; and one dram weight is given in broth if there be a Feaver, in wine, if not.

X. *Too great a flux of blood after the delivery*, either by reason of its plenty, or because she hath used hot things, or because of its thinness. *In the cure* take place, ligatures, a cloth dipt in Oxycrate, applyed to the Loyns and al the back bone, because there the Vena Cava Runs down. *Terra Cimolia* dissolved in Vinegar applyed to the same.

XI. *An insufficient Purgation*, by reason of the thickness of the blood, detained nine Months, induced by heat, which *is known* from hence, that it was more in the menstruous Flux. *In the Cure* takes place, the opening of the *Saphena*, but not before the womb is restored to its place. The use of Syrup *of Maiden-Hair* with Hyssop water, Wormwood water, Suffumigations, Fomentations, &c. But if her Purgation were not more in the Flux of her Courses, nor she did not abound with blood, we must act by dyer, and meats of good juyce.

XII. *A Feaver*, which is, 1. *From the generation of milk*, which is free from danger; it must be committed to nature, observing a goverment in dyer, and sweats must be promoted in which that is wont to end. 2. *From the suppression of the after purgation*, in the cure of which, note. 1. That a vein is most commodiously opened in the ankle; if that cannot be done cupping glasses with scarification are wel applyed, to the thighs and leggs 2. The time of the flux being over past, and a feaver urging, a vein in the arm may be opened. 3. *From the store of vitious humors*,

in

in which we muſt diligently conſider whether the ſick ought to be purged, or not, the time of the flux being over, only gentle ones muſt be adminiſtred. Things that alter, which ſtop the flux, as cold things, ſour things, muſt be avoided.

[Read more of this ſubject in the Guide to Phyſick and Chyrurgery, *Riverius* Practice of Phyſick, and his Obſervations; and the *London Diſpenſatory*. Al of the laſt Edicions, Engliſhed by me.]

Title, XIII. *Of the Affect of the Belly.*

A ſingle Chapter, *Of the Rupture of the Navel, and Inflamation of the Muſcles of the Belly.*

AMongſt the affects of the belly is, *A Rupture of the Navel, and Inflamation of the Muſcles of the belly. Omphalocele, which is a ſwelling of the Navel from the Guts, Caul, water, wind or a fleſhy ſubſtance fallen into it, or ariſing there.*

The *Signs, Cauſe, Cure,* do vary according to the Nature of the Differences.

The *Differences* are taken from the Cauſes.

One is *Inteſtine* or *Enteromphalos*, when the Guts ſlide into the Navel, which *is known* by this, that the Tumor is not very hard, nor ſoft; holding the breath it increaſes, and the Patient lying on his back it ſinks, the Guts going back into their place with a noiſe and rumbling. *It ariſeth* from blows, fals, jumping, lifting of a heavy weight, hard labor, riding, crying out, Mourning, Laughing, &c. *In the Cure* it requires. 1. *The putting of the Guts into their place.* 2. *The aſtriction of the peritonæum relaxt, the conſolidation of it if it be broke*, amongſt Medicines are, *Comfrey, Sanicle, through-wax, Rupture wort*, Boyled in red wine and given. *Inciſion* muſt be admitted at laſt, when no other things do good. *By Ligature* ſomtimes we provide againſt this affect.

Another is *of the Caul or Epiplomphalos, when the Caul ſlides into the Navel*, which *is known* by this, that the Tumor in one part is ſofter, broad at the Baſis, and narrow towards the top, that there is no pain preſent, and the ſame being preſt with the Fingers it ſinks, the Caul returning into its place, It *ariſeth* from the ſame Cauſes. *The Cure* is the ſame, but in a ſoft and young body 'tis eaſier.

Another is *watery or Hydrophalos, when the Navel is lift up into a Tumor by water*, which *is known* by this, that the Tumor is lax, and if it be preſt, 'tis neither increaſed, nor decreaſed, that 'tis joyned with a waving, and holding a Candle to it, it appears clear and perſpicuous. It *ariſeth* from water collected between the Peritonæum and the Skin of the belly, proceeding from the Cauſes mentioned in the Dropſie. *In the Cure* take place *things drying and diſcuſſive*, if theſe ſucceed not, *inciſion made like a half Moon.*

Another is *windy, when wind diſtends the Navel*, which is known by this, that the Tumor is ſoft, yeilds to the Finger, gives a ſound like a drum, and let the Patient lie which way he wil it is not changed. 'Tis hardly *cured* if it have its Cauſe lurking in the bowels which nouriſheth it, in Infants 'tis eaſily taken away with diſcuſſives.

Another *is fleſhy, when a fleſhy ſubſtance lifts the Navel up into a Tumor*, which *is known* by this, that the Tumor is hard, and being preſt doth not yeild, and is changed by no manner of lying. 'Tis *Cured* by cutting of the fleſh performed by a cauſtick Medicine or Iron, unleſs it turn to a Cancer, for ſo the evil is incurable.

An Inflamation of the Muſcles of the belly affects, either *the right Muſcles* or *tranſverſe*. If *thoſe* the Tumor is oblong, and extended al over the belly. The Skin is not handled without pain, and being laid hold on doth not follow. In every poſture the bulk of the Tumor remains the ſame. If *theſe* the deep parts are more affected, and becauſe thoſe Muſcles are Membranous about their end and have many Nerves, the pain is the greater; 'tis diſtinguiſht from an Inflamation of the Liver by this, that it follows the Figure of the Muſcles, and is not ſo round. *The Cure* is ſuch as in other Inflamations, and ſo much of the lower Belly.

An

An Appendix. *Concerning the Gout.*

An arthritis is a pain of the parts about the joints, caused by a defluxion of a serous and sharp humor, poured forth of the veins and arteries into them, assailing by periods, having joined with it an hinderance of motion.

The subject is the membranous parts, and those endued with sense about the joints, from which neither are the membranous ligaments excluded. The pain is caused more in them, both because the humors are thrust thither from the veins and arteries, and because being carried thither they are in less room.

The SIGNS are almost evident by the relation of the Patient, at first assault the pain invades the great Toe, and for the most part of the left Foot, afterwards a Tumor, heat and redness is manifestly perceived; there is added an impotency to move, and in an Arthritis of long continuance hard Knobs, &c.

The CAUSE is a solution of unity induced, *by a serous, Salt, and sharp Humor*, this ariseth from the use of nourishments, as plants, Carpes, unwholsom wines, by the accession of a vitious constitution of the bowels, as of the Liver and Spleen, *the efficient Cause of that Salt or Tartar.* It oftentimes comes neer to the Nature *of spirits* which have a most biting Salt in them, whence it often wanders up and down. By reason of the want of sufficient separation *'tis mixt with the blood.* By *the veins and arteries* 'tis sent to the *joints*, whence when the fit is at hand, the vessels which lead to the hands and feet, and are inserted to the utmost joints, do swel, by reason of their weakness, either natural from their parents, or acquired, by labor, excess of the air, and other things altering the joints, from whence they become softer and more relaxt, nature being stimulated by its plenty, disburthening it self, and sometimes being helpt by external causes, as the spring or autume aire, affections of the mind, the retention of accustomary sweating &c. 'tis moved to *the joints rather* than to other parts, perhaps because the ligaments and tendons are nourisht with a more terrestrial blood, and that hath affinity with the tartarous humor.

The CURE is in general *most difficult*, both by reason of the disease it self in respect of errors in dyet, and other things, & by reason of the fit, because the humors dispersed through the ligaments, membranes, and nerves, by reason of thickness & coldness of those parts, are hardly discust. *None at al* if any deadly disease be joined with it. If there be a luxation, for though the joint may be reduced, yet the ligaments remaine relaxt; if in the luxation, the cavity of the joint be filled with a tophous matter, because before that is taken away, the joint cannot be reduced; that cannot be taken away, if it be hereditary. It *respects*, 1. *The fit*, in which, 1. *The humors rushing to the part affected must be taken away*, where *bleeding* takes place, if blood do abound, and that *quickly*, because the flux is urgent. *Of the basilica* if al or many joints be affected; *in the opposite side* if one only. *No bleeding* if flegmatick blood predominate, least discussion be protracted. *Purging* when the pains are at hand, for which end is thought to serve, *hermodactils, Paracelsus his arthritical pouder, Horatius Angenius his electuary cariocostinum, the gum for the gout* in stronger bodies; in the weaker, the matter boyling very much, *Solenander his syrup of buckthorne, mechoacan &c. Sweating*, which is very wel caused with the decoction *of China, of the root of bur dock, with treacle, harts-horne prepared, antimonium diaphoreticum*, 2. *The afflux must be hindered by repellers*, if the pain be increased by a suddain and too great afflux of humors, but not by them alone, least the motion intended by nature, be stopt with danger of life, but mixt with things anodyne. The liquor *of the flowers of mullein* is commended, and *hartshorne burnt* steept and boyled in the water of mullein flowers and applied to the greived part. 3. *The pain must be mitigated*, where takes place, *Stockerus* his *oleum raninum, l. 1. c. 58. prax. Rulandus his antipodagrical water* in *Hartmans* Chymiatry. *Lacuna his ointment* of dane wort. *The foame of the decoction of china root* in *Zacutus*, l. 3. hist. med. hist. 38. Anointing *with the oyl of mans bones. Freitagius* his *secret* of opium and camphure in his book of opium, *Another of the same Authors*, there of sugar of saturne, and the salt of the same &c. *A lye* sufficiently seasoned with salt, the pouder *of oriental Bezoar stone*, or harts-horne prepared, mixt with hony of roses and vineger by a gentle heate, and layd on by way of cataplasme &c. 4. *The matter which hath flowed thither must be discust*, where take place the ointment *of castor*, Solenander his *mushromy of the oake*, consil. 24. sect. 4. *The water* in which brass and iron are quenched, and afterwards *mercurius vitæ* is steept, *the decoction*

coction of Nettles, made with wheaten bread, Salt, wine and water, &c. 5. *The Knobs must be dissolved*, for which purpose serves, *A Cataplasme of old cheese*, dipt in the strong broth of Salt Hogs flesh; and that which you may find in *Hartmans* Chymiatry. 2. *Prevention*, which requires. 1. *A convenient diet*, in which ought to be shunned, the Air in excess, meats that do administer matter for it, drinking of Moravia and Austria wine, &c. too great passions of the mind. 2. *Bleeding*, unless the body be cold, some open the Veins of the great Toes every month. 3. *Purging*, which ought to be ordered spring and autum, and it requires gentle ones rather than strong. 4. *The use of things good against the Gout*, as are *Germander*, *Ground pin*, *round Birth-wort*, *the true Pontick Rhubarb*, *&c.* 5. *The strengthning of the Joynts*, for which end serves, *a Lie made of the Ashes of beech*, and often strained, with the like quantity of wine and Alum, two ounces.

As concerning *the differences*, its species are, *the Foot-Gout*, *the Hand-Gout*, *the Knee-Gout*, *and the Hip-Gout*. Concerning them we meet with nothing besides what hath been formerly spoke: Concerning the last we must observe. 1. *That it ought to be distinguished* from that pain, which indeed is most vehement, but neither causeth a Tumor, neither consists alwaies about a joynt, but in the middle spaces also between the joynts; oftentimes after it hath afflicted a man once or twice it returnes not again al his life time. 2. *That it hath* this *property*, that 'tis diffused more largely than in other joynts, and often times to the adjoyning parts, both by reason of the largeness of the Hip bone, and the distribution of the Nerves, which come from the Loyns and Os *Sacrum*, to that Articulation, to divers parts. 3. That 'tis very hardly *Cured*, as wel by reason of the deepness and largeness of the place, as for the plenty of matter that is wont to be collected there. *In the Cure* for derivation a Vein in the outward Ankle is wel opened, if the pain tend outwardly; the Saphena in the inner Ankle if the pain tend inwardly. We must act with strong Purgers. *The Discussers* are *Sciatica-cresses*, *winter Cresses*, *dittander*, and others, concerning which consult with Practitioners. We write only an *Idea*. And let these suffice of the Diseases of the lower belly and joynts.

THE ELEVENTH BOOK OF THE IDEA OF PRACTICAL PHYSICK.

Concerning Poysonous Diseases.

Title 1. *Concerning the French Pox.*

HItherto we have treated of diseases that were not poysonous; *to those that are poysonous* belong *the pestilence, the lepra-sy of the Arabians,* The French *pox, and poysons.* Of the two former we have formerly treated, now we must speak of the French Pox.

But the French *Pox is a virulent & contagious cachexy of the whol body, for the most part raging with a hot distemper, falling of the haire, spots, swellings, stubborn ulcers, and cruel pain especially at night, enemy to the liver and nourishing faculty, arising from an excrement infected with a malignant and poysonous quality, transferred by contagion, but especially by copulation, and tyrannizing with many symptomes.*

It hath divers *names*; 'tis called the French, the Italian, the Neapolitan, the Spanish, the Indian disease, Syphilis, the gout of the privities, the great Pox, &c.

The adequate *subject* is the whol body, but the fewel of the evil is *the liver* it self, from which polluted, a crude and corrupt blood is disperſed into the whol habit of the body, and the nourishment of every part is depraved.

The signs of it begining are, a light *wearines* of all the members with a heavines of the whol body, because the natural spirits which are the immediate instrument of the supporting faculty, are infected, a smal and wandring *pain* through al the parts, which a vapor raised from the liver inducech: by the same *the color* of the face is changed, and under the eys there appeares a blewish circle as in menstruous bodies. An exceeding *heat* ariseth in the soles of the feet, and hands, even in the winter. The sleep is interrupted, a moderate *rottenes* about the privities, either because the filth of

of womens secrets hath corroded the skin, or because the liver drives forth to the privities the contagion communicated to it by the natural spirits. Moderate, smal *buboes*, not painful, nor increasing much, because the liver drives out evil Ex-excrements to the groines as to its emunctories. A french *running of the reins* which is inferd by the weakness of the spirits governing the faculties of the testicles. *Of it confirmed* are hard *pustles* al over the body, especially the head and beard, arising about the fourth or sixth month, somtimes with a crust, somtimes not; somtimes with filth, somtimes not; which ariseth either from a contagious matter sent from the liver, or from the part heaping up excrements by reason of the fault of concoction. Callous *ulcers* in the privities. A *softness* and hanging down *of the uvula* in the throat, which is followed with a hoarsness of the voice; for the nattural spirit being weakened, flegme ariseth in the stomach, snivel in the braine, flegmatick blood in the veins, and in process of the disease being adust, it becomes sharp. *Tumors* of the glandules in the jawes the matter infected and voided by the emunctories, being communicated to the head. A *Corruption* of the palate and teeth, which shewes the highest degree of the disease firme, crying *Paines* arising before the evening, which proceed either from a malignant vapor, or from the excrement heaped up about the periostia of every part. *A Corruption* of the bones of the head and armes, before an ulcer doth arise. Malignant *ulcers* besetting the whole body for the causes now given. *A falling* of the hair, *crusts*, *callosities*, *clefts*, in the palmes of the hands and soles of the feet, which arise from a flegmatick matter very much burnt. *A tingling* of the ears which is produced, when the hurtful vapor from the head cannot be expel'd by the skin, nor by the mouth, nor nose, and therefore by the last endeavor is thrust to to the ears. See more in Practitioners.

The *Cause* is an excrement polluted with a poysonous malignity, possessing the whol body or some parts of it, and corrupting the blood conteined in the veins, and making it unfit for good nourishment; *'tis communicated* by contagion which is promoted *inwardly*. 1. By the weak force of the natural spirits, and the liver it self. 2. By the largeness of the vessels, that a passage lyes open for the vapors and filth. 3. By an easie inflaming of the humors, by which that is most easily snatcht. 4. By the nature and softness of the substance in the parts. 5. By the affection of the minde, which if it be vehement, they that couple are not easily infected. *Outwardly by contact*, by communication of substance, viz. of the filth, Ichor, or sutty vapors; which is the easier, if the parts be soft, thin, and be hot; for which makes also, *copulation* with one infected, sucking of her milk, besmeering with the spittle, kissing, lying in bed with her, using the garments of one infected, &c.

The *Cure* is more difficult, if it seaze on those once cured. If it fal upon a hot and dry distemper, because either things propper cannot be administred, or if they be, another dammage is brought upon the body. If it fal upon a hot and dry time of the yeare, because the strength is then most of al exhausted. If a Feaver, consumption, or other greivous symptom be joyned with it; if there appeare in the joynts, callous, scirrous and hard tumors. If the sick be an infant, and hath sucked in this evil with the milk, because the virulency goes into the stomach with the milk, which infects the liver and blood. *It respects.* 1. *Preservation*, the which can scarce be taught with a good conscience, least there be a door opened to wandring lusts, unless perhaps you understand that prevention, by which one infected endeavors to oppose the accustomary symptoms, that they grow not upon him. 2. *The Cure* which is accomplisht. 1. *By the empty ing of the blood, and vitious humors wel prepared.* Where note. 1. That bleeding must not be ordered, if the bubo be suppurated, least the matter be called to the inward parts; it must be ordered, if blood do abound, that appropriate medicines hot and dry may more safely be given. If the matter be not moved to a peculiar part. If the matter tend to the head the cephalick vein must be opened; if to no part, the basilick veine. If there be a rottenness in the yard or running of the reins, in the lower parts, if the bubo tend not to suppuration. 2. *Purging* must be ordered at the beginning, least there be hurt done to a foul body by things alexipharmacal; it must be continued al the time of the cure, if matter be collected *that must be omitted*, if the matter stick cheifly in the external parts; mechoacan and jallop, adding things specifical, are of best use here. 2. *By overcomming the malignity and virulency, in bearing as wel in the humors, as parts, and especially imprinted on the liver*, which is pertected by sweaters and salivation. *The sweating* medicines that are *propper* here, are *pock-wood*, which is better

administred in a decoction or spirit, than any other forme, that its oyly and rauzeny part may be drawn forth, in which al the vertue consists, and in a lesser quantity at first, least it bring some damage by its too much heat, especially when catarrhs are present. *Sarsaparilla*, the barke of which roote ought cheifly to be taken casting away the pith, but must not be given where there is present a pain of the eyes. *China* which being temperate, and having somwhat nourishing, is most comodiously given when there is an atrophy. *Sassafras* that is of an aromatical smel, *oake wood*, *Juniper* with its berries, beach, box. Of which see *Renealmus* his observations. *Bezoarticum animale mixtura simplex*, *perficaria orcanum*, Hartmans *white spirit of mercury*, and his *red*, *&c. the manner of using them*, *Fallopius* and *Quercetan* in peculiar tracts of the French pox have evidently described, and *Hartman* in his Chymiatry, *Senertus* in his 6. Book of practice. *A flux* is raised with *Mercury* or quicksilver either *taken inwardly* where turbith takes place taken from one grain to three, pils of one scruple; of pouder of mastick, with a few grains, as from three to eight of mercurius dulcis sublimate, made up with hony into bals, and chawed somtimes for thirty dayes. Or *outwardly by anointing*, somtimes applying a greater, somtimes a less quantity of quick silver (two scruples may be used every time) which the emptying of the body by purging or bleeding ought to go before. The mixture and mortification of pure *mercury* and vivified by cinnabar, with hoggs greace, oyl, butter, turpentine, must be *followed* with the bringing forth of the mercury out of the body, that none of it be left there, by sweating, holding of gold in the mouth, drinking of filings of gold, and other waies. Washing of the mouth and jawes with warm milk. Hindering of inflamations with the decoction of plantane, self heale, &c. *But in general we must observe* that mercury must be applied, when the decoctions of the woods cannot be admitted, by reason of somewhat forbidding them, or when the disease cannot be overcome by other remedies, and that not unless the strength be firm. The body not too foul, nor too much wasted; the aire not very hot, the patient before the disease being free from a palsie and trembling. Suffumigations are too vehement, therefore they are reckoned amongst the last remedies. 3. *By convenient diet*, whose exact description see amongst authors.

The cheif *symptoms* we meet with in the French pox, are,

I. *A rottenness*, which is in a threefould difference. 1. Either *'tis caused by contact* or touching the privities of one sex being infected. And *then* pustles breake forth, first smal and white, which exceed not the thickness of the least grain of mille t: there breaking there remains a round ulcer having a white point in the middle: somtimes the whole nut is compast with them coupled together as with a ring, without pain, with a light itching. *'Tis cured* with oyntment of diapompholigos, or nightshade water in which a little roch allum is dissolved layd upon raggs. *Or by transmissing of a thin excrement from the liver to the privities*, and *then* there is a round ulcer, without a white specke, livid, having the lipps a little puft up, purple coloured. *In the cure* repellers must be shuned, least a bubo be caused. It may be washt only with the decoction of pockwood with plantan water, &c. or *by the heating of the excrements cleaving to the privities by copulation, putrefaction and infection*, and *then* the ulcer is malignant, not round, of divers figures and colours, having callous lips, creeping, &c. Concerning the cure of it consult with *Fallopius*, c. 85. 2. Or 'tis *in the bosome of the womb*, the cure of which after washing requiers *Fallopius* his pessary. Detersives if the ulcers begin to be suppurated; causticks, if the putrefaction be strong, a red hot iron, having a care of the sound part, a dayly washing of the privities with the decoction of pockwood with scabious and tormentil. Or *in the channel of the yard*, which is *known* by the filth flowing forth, and great pain in the time of pissing, and is cured after the same manner as that which followes. Or *in the nut*, to which those things going before and which follow after, ought to be applied. 3. Or *'tis with a tumor of the foreskin* that the nut cannot be uncovered, or if it be uncovored, 'tis done with a great deal of pain, concerning which see *Fallopius*. c. 83. Or *with a callousness of the foreskin*, of which the same author. c. 84. or with a callous skarre, or *with warts or excrescencies*, of which. c. 87. and 88.

II. *Buboes*

II. *Buboes*, which *are Distinguisht* from others that are not gallical, that either a Rottenness, or a contagious running of the Reins is present, and Copulation went before, there being no other certain cause existent. But those Tumors are *of two kinds*, somtimes *the matter is collected about the Glandules in the membrane that covers the Glandules*, or that fils up the Cavity of the groins. Somtimes *the proper substance of a Glandule swels*, which Tumor somtimes riseth to so great a bulk, that 'tis bigger than a loaf. *In the Cure* bleeding and purging must be avoided unless the Bubo either decrease, or be at a stay. *A Diachylum Plaister*, doth molifie and ripen it, being opened *Opodeldoch* is wel laid upon it. *The Black* Oyl *of Tartar* is a most excellent discussive.

III. *A falling of the Hair*, which ariseth from an evil Humor knawing the Roots of the Hairs. *In the Cure*, astringent things must be shunned, gargles and sweats here do much good; to which may succeed the washing of the Head with *Fallopious* his lie.

IV. *Pains of the Head*, in whose cure inwardly takes place, *Hartmans Diaphoretick Oyl* of Mercury, outwardly *Vigoes Magistral* Plaister *de ranis*; *and that of Platerus*, Observat. l. 3.

V. *Pains of the Joynts*, and especially of the lower parts between the Joynts, which at night grow more feirce, because then the pores are stopt, and they are taken away by fomentations.

VI. *Pustles, Efflorescencies, Scabs, clefts*, in the palms of the Hands and soles of the Feet, the Cure of which see in *Hartman*.

VII. *A running of the Reins*, in which the same *Hartman* commends, green Mercury precipitate, or the Gum of Pockwood, which being given, Turpentine washt in violet water, and dissolved with the yelk of an Egg ought to be administered with the Decoction of Sarsaparilla. *'Tis distinguished* from another by this, that it causeth little or no itching, nor doth not so soon cast the Patient into a Consumption.

VIII. *A tingling of the Ears*, which is very difficultly cured, yet somtimes it vanisheth by the use of the decoction of Pockwood. Septalius commends *an Asses water* distilled, in which Pockwood, some castor and a bundle of Horse mint have steeped al night, and dropt into the Ears, or the fume of it received.

IX. *Hardnesses, or Knobs and Gummosities*, for the Cure of which Platerus hath afforded excellent Plaisters in the third book of his Observation. Hither belong *Hartmans* Oyntment made *of Unguentum Aureum of the shops, and Mercury sublimate*.

X. *A Consumption*, in the Cure of which *Septalius* tels me, l. 7. Of his Animadversions, p. 322. That the Decoction *of Sarsaparilla*, made with leane Veal, is admirable.

[Read more of this subject in the Guide to Physick and Chyrurgery, *Riverius* Practice of Physick, and his Observations; and the *London Dispensatory*. Al of the last Editions, Englished by me.]

Title, II. *Of Poysons.*

Chap. 1. *Of Poysons digged out of the Earth.*

POysons considered in special are, either *digged out of the Earth*, or *Vegetables*, or *Living Creatures*.

The cheife and most common *of those digged out of the Earth*, are the following.

I. *Aqua Fortis*, whose strength is broke by the Mucilage of Quince Seeds, Flea-wort, Gum Tragacanth, &c.

II. *Antimony*, whose Antidote is bole-Armenick given with Oyl of Cloves and a little Wine. That it hurt not with its Vapors whiles it is wrought in the fire, we must Eat butter with Rue, or drink Zedoary water.

III. *Lapis Lazuli*, which if it be taken either ill prepared, or in a greater quantity, it ought to be cast up by vomit, and be tempered with a drauft of warm Milk, especially asses Milk.

IV. *Arsnick*, *Auripigmentum*, *Sandarach*, which somtimes infect by their smel; their specificks are, Crystal digged out of the Earth poudered and drank, one dram weight with new Oyl of sweet Almonds and Oyl of Pine Nuts given, three drams weight.

V. *Burnt brass, Scales of Brass, the flour of Brass, the rust of Brass*, which are weakned by sheeps Fat taken in broth, are killed by Bole-Armenick given with Honey and water.

VI. *Refuse of Iron, and the rust of Iron*, whose

whose antidote is thought to be one dram of a Load-stone made into Pils with the juyce of Mercury.

VII. *Lead*, to which are opposed the Kernels of quinces husked, bruised and given, two drams weight with sweet wine.

VIII. *Quick-silver*, against whose fume received we proceed with a draught of wine in which some Cephalick things have been boyled. Sublimate is resisted by Oyl of Tartar, or Salt of Wormwood.

Chap. 2. *Of Vegetable Poysons.*

VEgetable Poysons, or those of plants, are as follow.

I. *Aconitum, or Monkes hood*, whose antidote is Andromachus Treacle, or Terra Lemnia in wine; outwardly the swelled body must be anointed with Oyl of St. Johns wort, and Scorpions.

II. *Spurge*, against which a vomit being premised, Andromachus Treacle is good with Carduus water.

III. *Mezereon*, which is resisted with water Germander, red Coral, Treacle, and Terra Lemnia.

IV. *Black Hellebore*, whose antidote is the pouder of the flowers or Roots of white water Lillie, or of Parsnip seed with wine.

V. *Coloquintida*, whose force Treacle doth infringe.

VI. *Euphorbium*, whose force is broke with Citron Seed in wine in which Elecampane Roots have boyled.

VII. *Green Coriander*, which causeth a furious raving, and hath the Root of swallow wort in wine for its antidote.

VIII. *Mandrake* which causeth a heavy sleep, its Symptomes are resisted by garden radish taken sometimes with Salt.

IX. *Henbane*, which they that have taken of it, do sometimes rangle; and dote like drunken men, sometimes think that they are beaten with rods, by reason of an Itching caused in the whol body, its antidotes are Pistachoes, castor, Rue, Nettle Seed.

X. *The Walnut Tree*, whose shade, if any one lie under it, it doth hurt, and causeth pains of the Head: they are taken away with a lie of betony, Marjoram, Lavender, &c.

XI. *Nux Vomica*, whose antidote is Zedoary, two drams weight, Citron Pill or the Juyce of it, Juyce of the Myrtle or quinces.

XII. *Opium*, upon the too much use of which a Heavy sleep seazeth with a Vertigo, and itching of the whol body, whose antidote is assa Fœtida and castor, to which add Rue, and Origanum.

XIII. *Mushrums*, which if they be taken either in too great quantity, or be not wel concocted do cause Suffocation, raise the hickops, stop the Urin, and exulcerate the Guts. *In the Crue*, are commended the ashes of prunings of vines, with honeyed water; Treacle and other things.

Chap. 3. *Of Poysons from live Creatures.*

THe cheise Poysons which are inferred by living creatures, are those which are Caused,

I. *By an aspe*, whose wound is so smal, that it can scarce be seen; upon its biting, there come a heavines of the Head, sleepines, palenes of the Face, often gapings, &c. In the Cure we must provide by ligatures and Scarifications that the Poyson peirce not into the body; Treacle with bruised Rue, must be laid on the wound. Things alexipharmacal must be given inwardly, amongst which are commended, the leaves of Mullein, Avens, boyled in Vineger.

II. *By a Viper*, at whose stroke first the blood comes forth pure, which is followed by a bloody and frothy filth like to the rust of brass, with a notable tumor of the part and whol body, pustles adust and blackish in the part affected. Its antidote is costus given from half a dram to one dram; with wormwood wine or the Decoction of wormwood, an Hares Runnet, Leeks, &c.

III. *By a Scorpion*, at whose stroke do follow pain, inflamation, a Tumor, pustles about the wound like warts. 'Tis resisted by sage, water germander, wormwood, gentian, birth wort, up-right vervain, wild time &c. One hath been freed by frankincense bruised in whom the scorpion had left its print.

IV. *By a Lizard*, which leaves in the wound for the most part, its subtile, smal black teeth; the teeth must be drawn out with Cupping-Glasses, a Cataplasme of the crum of wheaten bread made with the Decoction of Rue, Galick, gentian, must be applyed. Inwardly we must act with things alexipharmacal.

V. By

By an Horſ-leech, which if it be ill applyed, that the wound go not wel, a Cataplaſme of Agrimony bruiſed muſt be laid upon it. If it have got into the Guts, tis voided by applying to the Anus Oxe dung dryed moderately hot, ſtrewed with the pouder of woodworms or caſtor, firſt caſting in a Clyſter only of the juyce of Onions.

VI. *By a Toad*, which infects ſomtimes by breathing on, ſomtimes by urin caſt upon plants. In the Cure, let Treacle be given to drink with the Decoction of Rue. Let pure wine be drank liberally, plenty of ſweat be provoked in a bath.

VII. *By the fiſh Araneus*, which is either taken inwardly into the Body, or by a blow ſends its poyſon to the Body, which way ſoever it be, a ſwelling of the Belly, involuntary Tears, a deſire to Piſs, a diſtenſion of the Yard in young men, a relaxation of it in old men does afflict them. In the Cure, inwardly Treacle is wel given after a Vomit; outwardly, the place bit muſt be often waſhed with Salt water.

VIII. *By Flyes, Waſpes, and Spiders*, whoſe ſting muſt be taken out, and the place afterwards waſht with Salt water, and the Creatures bruiſed muſt be laid on the wound to ſuck out the Poyſon.

THE

THE TWELFTH BOOK OF THE IDEA OF PRACTICAL PHYSICK.

Of the diſeaſes of Children.

Title. 1. *Of the diſeaſes of the Head.*

WEE might here now ſtop, and conclude our little work, but that the diſeaſes of children do hinder us, in which we meet with ſome things ſingular. Concerning them therefore we wil ſpeak very breifly in this laſt book as an appendix; and we ſhal not unprofitably divide them into the diſeaſes *of the head, middle, and lower belly.*

The diſeaſes of the Head in Children are.

I. A *milky cruſt, achores and favi*, or ulcerous bunchings out, ariſing cheifly in the head, but ſomtimes in the whol body, pouring forth of their holes ſomtimes mattery. *They ariſe* from a humor conteining partly thick, partly thin, ſerous, ſalt, and nitrous parts, either collected in the womb, or out of it by default of the milk. *In the cure* if no evil be feared, things that drive it out muſt be adminiſtred, as ſyrup of fumitory, burnt harts-horn, the nurſe muſt be purged, the matter offending be qualified by giving ſyrup of burrage, fumitory &c. if an eminent putrefaction be feared under the cruſt, the head muſt be waſht with an emollient decoction, afterwards gentle drying ointments muſt be applyed; if the skul be hurt we muſt provide for that.

II. *Aſiriaſis* or inflammation of the brain and membranes, which a hollowneſs of the forehead and eyes doth follow. *'Tis known* by this, that the bones of the fore part of the head at their upper part, where the coronal and ſagittal ſuture do meet, are as it were membranous, & the lower parts of them al are hard. It may *ariſe* alſo from the milk if the nurſes uſe ſpirituous and hot drinks. As *Lucretius* is Author that the goats tender young ones, are made with milk and wine. *In the cure* wee muſt endeavor that the brain be not hurt with the too much uſe of things cooling.

III. *A falling ſickneſs*, which proceeds, 1. *From a fright*, all occaſions of which muſt be avoided

avoided. 2. *From milk corrupted* in the stomach, and then a vomit is best. 3. *From Worms*, moving themselves in the Guts, of which Care must be taken. 4. *From hard breeding of Teeth*, which must be promoted. 5. *From the small Pox, Measles, and Feavers*, which also must be Cured. 6. *From a primary affect of the Brain*, the Cure in general respects both the time of the fit and the time after the fit. There is comended the *Emrald* stone. The Stone found *in the stomach of Horseleeches*, opened about the opposition of the Sun and Moon. *Elkes Hoofe*, put into the left Eare, a vomit here. *A Nodulus*, of Harts-horn prepared, Salt of Corals, Crystal prepared, the wood of Misleto of the Oake, put into the drink and renewed every fifth day, *a Plaister* made of white Amber, Frankincense, Mastick of each one dram and an half; Galbanum, Opoponax, of each one scruple; Misleto of the Oake, two drams; Amber Greese, six grains; Musk, three grains; Male piony Seeds, half a dram; Labdanum, one dram and an half, with a little Oyl of Nutmegs, and sprinkled over with the pouder of Cubebs. The Forehead and Neck also may be anointed with *Oyl* of white Amber.

IV. *Fears in sleep*, which because they arise from impure and filthy Vapors mixt with the Animal Spirits, and troubling them, raised from the Stomach, therefore they happen to Infants that do greedily suck. *In the Cure*, we must see, that the Infants do not too much ingulfe themselves in Milk, or that bad Milk be not generated, or that the little ones be not carryed to bed on a ful stomach. Let the stomach about its Orifice be anointed with Oyl of Quinces, Mastick, with Oyl of Nut-megs, before they sleep let a rowle of Diamoschum dissolved in Milk be given, and unless they be very hot, let a little Treacle be given weekly.

V. *A Convulsion*, of the joints in the Hands and Feet, which ariseth from the plentiful heaping in of thick Milk, and with which they are for the most part troubled about the time of breeding of teeth. *In the Cure* we must have a care of a cold and hot distemper, the Neck and joynts must be conveniently anointed.

VI. *Too much Watchings*, which for the most part do arise *From sharp Vapors* raised from the Milk corrupted in the stomach, sometimes they rise from Feavers, or some painful affect, *In the Cure* 'tis better that the soles of the Feet be anointed with the Marrow of Deers bones, than that strong Hypnoticks be given, by which they are made more stupid.

VII. *A Squinting*, which is Cured in the new born if the light be placed on the contrary part to which the Eyes decline, or a Vizard with holes be put on the Face, of which See *Hartman*.

VIII. A *Moisture of the Ears*, arising from the moisture of the brain heaping up many Excrements, in which we must not be over hasty in the Cure. *The Urin of Children distilled dropt into the Eare is commended.*

Title, II. *Of the Diseases of the middle Belly.*

THe *Diseases affecting the middle Belly in Children are.*

I. *Hard breeding of* Teeth, which *is known* by this, that 'tis the time of Toothing, which happens about the beginning of the seaventh Month; the Infants often put their fingers in their Mouths, the Nurses feel their Nipples to be griped stronger; the place where the Teeth endeavor to break forth looks white, a great pain afflicts them, especially when Dog Teeth are cutting, with watchings, a loosness, Convulsions. *The Cure is of good Hopes*, if the Belly be loose, if an acute Feaver happen, because the matter causing the Convulsion being wasted by the Feaver, the convulsion ceaseth. If the Teeth break forth in the Winter or spring, because in the Winter the strength of the Native heat is greater. In the spring the Laxness of the Gums. We must have a care in it, least that if the Belly have been loose, it be not too soon stopt. The Gums *being swelled* must be anointed with the brains of a hair boyled, or with the Fat of it; *being inflamed*, with the Oyntment of Oyl of Roses and white Wax washt with the juyce of nightshade. *Being Ulcerated*, with fresh butter, with a little Honey and pouder of Frankincense.

II. A *Cough*, with difficulty of breathing, which either ariseth from matter *falling from the Head*, and *then* there is a Catarrhe and Cough, and in breathing there is perceived a certain snoaring and sound, whiles the Aire doth not pass freely, but through the ob-

ſtructed bronchies of the Lungs. Or *From Flegmatick blood* aſcending out of the Veins to the Lungs. And *then* there is neither Catarrhe nor Cough, and the Hypochondries are ſweld. *In the Cure* we muſt obſerve, whether the Cough be cold or hot, whether dry or moiſt. *Waſhing of the Feet*, in drink in which Cephalick Plants have been boyled, is commended; which muſt be followed with anointing of the ſoals with the Fat of a pike, or Goats Suet. *Outwardly*, the Breaſt may be anointed with Hens greaſe to make the breathing more eaſie.

Title, III. *Of the Diſeaſes of the Lower belly.*

THe *Diſeaſes of the lower Belly in Children*, Are,

I. *Vomiting*, which if it proceed *from plenty of Milk*, it muſt be withdrawn; if *from corruption of the Milk*, that which is caſt up by vomiting muſt be conſidered. In the Cure Honey of Roſes ſolutive given inwardly doth good; outwardly the ſtomach muſt be anointed with Oyl of Mint or wormwood; if from worms the Cure muſt be directed againſt them.

II. *Torments of the Belly*, which *are known* by this, that the Infants are unquiet, beat the Breaſt. *They ariſe* from wind, Humors, Milk corrupted, worms. *The Cure* may be fetcht from that above.

III. *A puffing up of the Hypochondries*, in which the Infants labour of a ſtreitneſs and compreſſion of the Mouth of the Stomach, a Cardiacal paſſion, and difficult breathing. It ariſeth from the greedy eating of Infants, when either they ſuck Milk plentifully, or take too much of other meat. Inwardly is commodiouſly given againſt this affect the pouder of Orice Root, of piony. Outwardly Fomentations with the Decoction of Mother wort are good.

IV. *Coſtiveneſs of Body*, which proceed either *from ſome error* in the Diet of the Mother or Nurſe, or *from a diſtemper*, either cold and dry in the Guts themſelves, or hot and dry in ſome Bowel. *There* the belly is alwaies almoſt ſluggiſh, and it muſt be agitated by moiſtures, Viz. Caſſia, Laxative raiſons, &c. *Hence* the Signs, and Cure, muſt be ſought from their places. Or *from a Viſcous*, and Tough *Flegm* wrapping up the Excrements to which inciſive and abſterſive means are due. The Symptomes oppoſed partly by ſuppoſitories of Mouſe dung with goats ſuet, partly by Clyſters: partly by uſe of things to the Navel, which are prepared of Aloes, Oxgaul, Myrrh, butter, Oyl, Quercetans Diacolocinthidos and other things. Purging Medicines may be given alſo to the Nurſe.

V. A *Looſneſs*, happens either *out of the time of breeding Teeth*, the Reaſon of which muſt be fetcht from the ſixth Book, or *in the time of Toothing*, by reaſon of the corruption of the nouriſhment, and concoction troubled, or by a Feaver and preternatural heat, or by too much watching which pain cauſeth, or by pain calling away the heat that is neceſſary for action. This ought not to be ſtopt ſuddainly, if it be neither plentiful, nor the Infants bear it not ill; but if it happen otherwiſe, we muſt cleanſe firſt with a Clyſter, or Syrup of Roſes ſolutive with aſtriction. By and by we muſt bind, having regard to heat and cold.

VI. *Worms*, of which is ſufficiently ſpoken in the ſixth Book. They may *be prevented* partly *by Diet*, in which ſweet Fat things, Milk, Fiſh, Decaying fruits, figs and other things muſt be ſhund; Harts-horn prepared muſt be ſteeped in the drink, partly *by Medicines* carrying away the matter fit for the generation of worms, as are the Decoction of Sebeſtens, or its elactuary, Rowles of Diatrubith with Rhubarb, &c.

VII. A *Rupture*, which *ariſeth from the Peritonæum*, either *Relaxt or broke* by crying, Coughing, a fal, croſſing of the Legs, and then the Tumor is for the moſt part in one ſide, the Guts fallen down may be perceived by the touch, ſee the Cure in its place. Or *from a watriſh humor abounding in the belly*, and falling into the Cod, and raiſing it into a Tumor; and then the Tumor is for the moſt part in both ſides, the Cod is more puft up than in a Gut Rupture. In the Cure we muſt uſe Diſcuſſives.

VIII. An *Inflamation of the Navel*, which *ariſeth* when the blood runs thither from pain, and hurt by the external Air. It is dangerous if it change to an impoſtumation, and that being broke the Guts fal down. Therefore Suppuration may be hindered as much as may be.

IX. A *Strutting out of the Navel*, which

is

is discerned from an Inflamation by this, that the Navel yeilds to the touch, the color of the Skin is not changed, neither is there a Pulse or pain, unless the Guts be very much fallen down. *It ariseth*, 1. *From the ill tying of it*, or when a greater part of it than ought to be, is left, and this is incurable. 2. *From the Laxation of the Peritonæum*, and then the Tumor remains almost equal, the Navel hangs not forth so much; in the Cure we must have a care of windy Meats, Coughing, Crying. 3. *From a Rupture of the Peritonæum*, and then the Tumor when the Infant lies on his Back, is scarce perceived, when it walks, Sets, Cryes, Cals out, it increaseth. *In the Cure* the moss which grows on the Bullace Tree, is good. *Forestus*, commends rounds made of Leather and anointed with Oxycroceum.

X. *The Stone of the Bladder*, which *is known* by this, that the Urine is made with pain and by drops, 'tis somtimes cleare, somtimes like Milk or Whey, somtimes conteins some blood, the Infants perceive an itching in the yard. *It ariseth either* from Milk generated from meats producing a matter fit to form a stone, *or* from gravel by the accession of the weakness of the Stomach or Liver, by reason of which, things Unprofitable are not separated; or by the hot distemper of the Kidneys, by reason of which the Chyle is attracted, and sent to the Bladder unaltered. *In the Cure* baths take place with anointing, also broth made with the grains of Eglantine purefied. See above, l. 6.

XI. *Incontinency of Urin*, which *ariseth*, 1. *From Custome*, the Muscle appointed to shut the Mouth of the Bladder, being so disposed, that 'tis relaxt at the least goad; if it pass to a habit, for the most part it accompanies til Death. 2. *From the Stone of the bladder*, of which formerly. 3. *From the weakness of the Sphincter Muscle*, induced by a cold and moist distemper. Which is taken away partly by the Nurses Dyet, partly by convenient Medicines inwardly and outwardly applyed (a Bath of Sulphur, Niter, and Oak Leaves is commended.)

XII. *An Intertrigo*, when the Scarfe Skin in the Hips is separated from the true Skin. *It ariseth* cheifly from the Acrimony of the Urin, especially in the Corpulent, in which the filth cleaves to their Hips being wrinkled by reason of their Corpulency. *In the Cure* after a bath takes place, Nihilalbum, strowed on the place, or the Oyntment of Lytharge laid on.

XIII. *A Leanness*, which *ariseth*, 1. *From most smal Worms*, which are generated in the Musculous parts of the Arms and back, & consume the nourishment. They break forth like to ash colored or black Hairs after those parts have been rubbed in a bath with bread mixt with Honey. They are taken away, if after they have put themselves forth, they be shaved off with a raizer or crust of bread. 2. *From Milk* either little or *Bad*, which faults are somtimes mended by changing of the nurse. 3. *From bewitching*, which is inferred either by touching of bodies evilly affected, as happens in the Scab, French Pox, &c. Or by diseased effluxes which break forth either from them or their Parts, the Eyes especially, and are transferred to them. (Hence if one earnestly look upon those troubled with an Ophthalmy, he is taken with the same Disease) amongst the medicines that destroy bewitching, *Amber* and Coral hanged about the Neck are highly commended by some. But concerning Childrens diseases, consult with *Sebastianus Austrius*, and the notes of *Nicolaus Fontanus*, upon him.

FINIS.

The Vertues, Use, and variety of Operations of the True and Phylopsohical AURUM POTABILE, *Attained by the Studies of Doctor* Freeman, *and Dr.* Culpeper, *and left with his Widdow, and administred by a Physitian in her House neer* London, *on the East side of Spittle-fields, next door to the Red Lyon.*

The Vertues are as follow:

IT Cures al Agues, whether Quotidian, Tertian, or Quartan: as also it cured divers people of that most horrid putrid Feaver, which so violently seized on mens bodies (both before and after *Michaelmas*, 1653.) to the great admiration of many; and when the parties Diseased have been both senceless and speechless, for that neither that, nor any other Medicine of *Panacea*, though never so gentle, could safely be administred into the body, it hath beyond al Hopes, by external Application on the stomach revived them. It cures the Gout of all sorts perfectly being administred as the Physitian shal advise. It causeth Women subject to Abortion, or Miscarriage, to go their time: and yet being given when the time comes it causeth a speedy and easie delivery. It is an infallible cure for the French Pox, and doth it with such ease, speed, and Secretness, that none of the neareſt relation shal take notice thereof. It Cures the Green-sickness and al sorts of Jaundce, It provokes the Terms. It is good for Aches and all afflictions coming of cold. It helps the Rickets. But to what purpose do I nominate diseases in particular, when it is an universal Remedy for al Diseases being administred as the Physitian shal advise? For its chief aim is exhilarating the vital Spirits and Heart. It both binds and stops fluxes, yet Purges; it both Vomits, and stays Vomiting; it causes Sweat, yet cures preternatural sweatings, and performs al its Operations as Nature it self would have it, because it only fortifies her in her Centre.

To conclude, It is an Universal Fortification for al Complexions and Ages, against al sorts and degrees of Pestilential and contagious Infection, both preventing before their possession, and extirpating of them after it.